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AMERICA IS AWESOME

The summer of 2012 was the summer when we, 18 engineering students from Chalmers, began the greatest journey of our lives. We are all fulfilling our dreams during various internships throughout the US. This magazine, our Trainee Report, will give you a brief look into our experiences, adventures and impressions from our time here. We will also describe our host companies and what kind of tasks we are performing.

We have all been part of the student organization CETAC – Chalmers Engineering Trainee Appointment Committee – in which we have all worked together to make our internships possible. Each year, CETAC makes it possible for Chalmers students to travel to the US. If you are even a little bit amazed by our stories, you should consider applying for a CETAC membership.

It has been a long journey to get to where we are now. Last year when I was putting hours and hours into completing last summer's Trainee Report, America seemed so far away. Now, a year later I am here, and can sincerely say that all the effort spent in CETAC was worth it tenfold!

I hope that this magazine will inspire you to fulfill your own dreams, and that you will enjoy our stories. America is awesome. Happy reading!

Michel Edkrantz
Editor in chief
August 9, 2012

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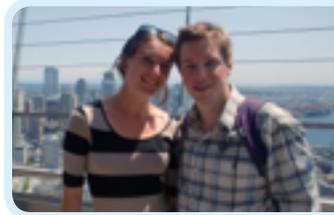
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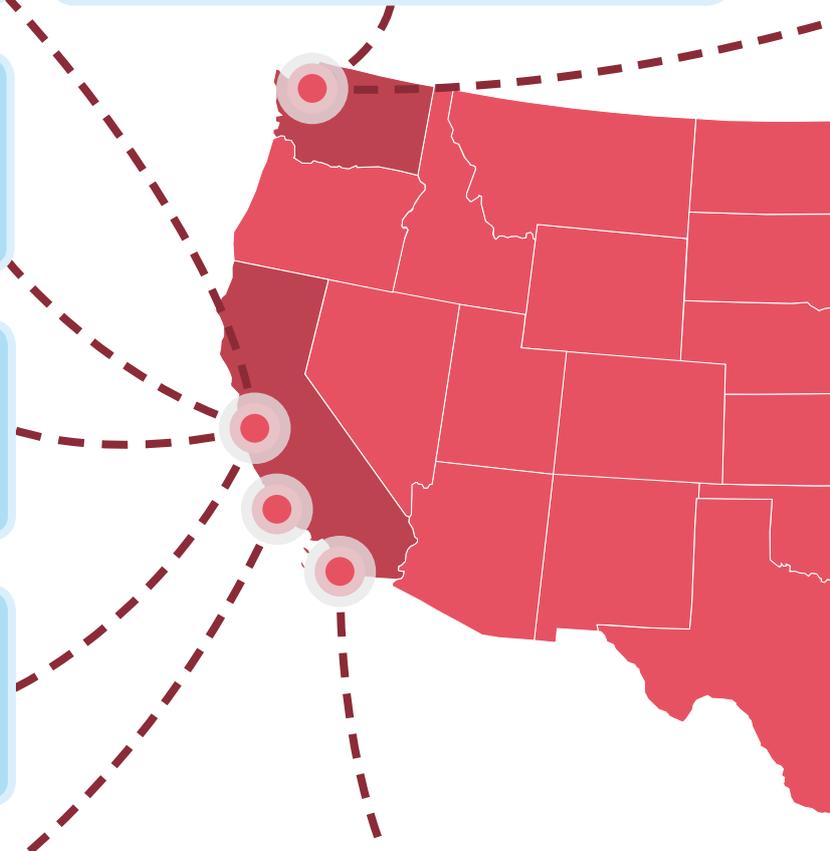


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ATT SÖKA CETAC

DU BLÄDDRAR JUST NU I EN TIDNING FYLLED MED RESEBERÄTTELSE FRÅN CHALMERISTER SOM HAR VARIT I USA SOMMAREN 2012. LÄS VAD DE HAR UPPLEVT OCH HA GÄRNA I ÅTANKE HUR DET SKULLE VARA ATT SJÄLV FLYGA ÖVER ATLANTEN, SAMLA VÄRDEFULL ERFARENHET FÖR FRAMTIDEN OCH UPPLEVA ALLA VÄRDLENS KULTURER I NORDAMERIKA SOMMAREN 2014!

AUTHOR VIKTOR HOLMQUIST PHOTO MICHEL EDKRANTZ

CETAC lägger stor vikt vid att praktikplatserna är intressanta och kvalificerade ingenjörsarbeten. Vi kan stoltsera med tidigare arbetsgivare som till exempel Siemens, NASA, Apple, Intel, Microsoft, Silicon Power Corp, Merlin Engineering Works och SUN Microsystems. Praktiken varar minst åtta veckor, men de flesta stannar så länge som ett halvår eller ett år!

Praktiken ger inte bara goda arbetslivserfarenheter men också ett värdefullt kulturellt utbyte. Kulturell förståelse och erfarenhet är något som efterfrågas allt mer i det ökat globaliserade näringslivet. Språkerfarenheten är också väldigt viktig, då ingenjörers kommunikativa förmåga är av stort värde för företag idag. Ligg ett steg före; sök medlemskap i CETAC och upplev ett spännande och lärorikt äventyr sommaren 2014!

MEDLEMSKAP

För att bli medlem i CETAC skall du studera på E, D, IT, F eller TM samt vara svensk medborgare eller ha permanent uppehållstillstånd i Norden. Vid ansökningstillfället måste du även ha uppnått minst 75 hp på din utbildning, och under det kommande året uppnå sådana studieresultat att du är studiemedelsberättigad. CETAC är föreningen för dig som är motiverad och beredd att lägga ned tid och engagemang för att få ut något extra av din studietid.

ATT SÖKA STYRELSEN

CETAC 2013 kommer under läsperiod tre 2013 att söka medlemmar till styrelsen för CETAC 2014. Den nya styrelsen antar sedan ungefär 25 nya medlemmar under läsperiod fyra 2013. Styrelsen består av 5-6 personer. Ordföranden organiserar arbetet, håller kontakten med American-Scandinavian Foundation och hanterar visumansökningarna. Kassören lägger upp en budget, deklarerar och fakturerar företag vid annonsförsäljning.

Efter vistelsen i USA skriver alla varsin reseberättelse. Dessa sammanställs sedan i vår tidning, Trainee Report, som du nu håller i din hand. Jag som redaktör har som huvudsaklig uppgift att utforma föregående års rapport men framställer även broschyrer, affischer och andra trycksaker och är administratör på CETAC:s hemsida. I styrelsen ingår också två jobbchefer som kontakter amerikanska företag och finner lämpliga arbetsgivare samt en säljcoach som är medlemmarnas mentor och hjälper dem att komma igång med försäljningen av annonser. Jobbcheferna hjälper dig också att skriva ett grymt amerikansk CV.

ATT VARA MEDLEM I CETAC

Medlemskapet i CETAC bygger på såväl personliga arbetsinsatser som arbete i grupp mot ett gemensamt mål. För att kunna finansiera resan till USA och andra omkostnader samlar man som medlem in bidrag och säljer ett antal annonsplatser i Trainee Report. Annonsförsäljningen inleds på hösten med en resa till Stockholm. Under denna resa besöks intressanta företag där medlemmarna får presentera både sig själva och CETAC. Föreningen har ett brett kontaktnät med företag, vilket medlemmarna kan utgå ifrån under annonsförsäljningen. Under hösten anordnas även en säljkurs och en CV-kurs för CETAC:s medlemmar. Att vara medlem i CETAC kräver ett stort engagemang men det ger samtidigt en unik möjlighet till en givande avlönad praktik i USA eller Kanada och många nya vänner och kontakter på Chalmers och i Nordamerika. Ta chansen och sök du också! ■



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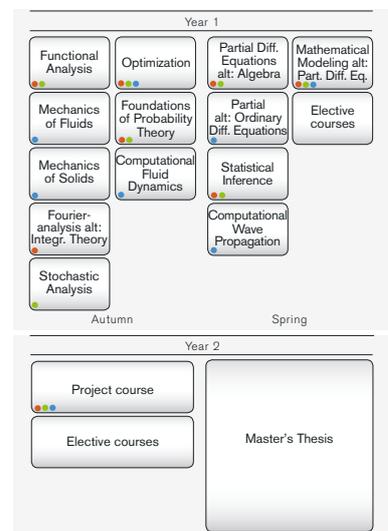
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THESE STREETS WILL MAKE YOU FEEL BRAND NEW

IN NEW YORK, A CONCRETE JUNGLE WHERE DREAMS ARE MADE, THERE'S NOTHING YOU CAN'T DO - NOW YOU'RE IN NEW YORK

AUTHOR EMILIA INGEMARSDOTTER PHOTOS CETAC 2012

It was with a mixture of anticipation, anxiety and sheer happiness that the group met up at the hostel on Upper West Side, New York City. We were here, finally! We had all been working so hard to get here; finding host companies and sponsors, navigating through the visa application process not to mention surviving final week and finishing bachelor theses.

Yet here we were, in the United States; the land of the free and a place where all your dreams come true. Hey, that is a lot of pressure to put on a freshly baked undergrad from Sweden! Where to start? What are my dreams anyway? Nervousness was definitely a part of our week in New York but as the days passed we started realizing that this trip was for real. One of our dreams had already come true and we could all thank each other for that.

“
**WE HAD PROVEN JAY-Z RIGHT:
THERE'S NOTHING YOU CAN'T DO**
”



The air was full of expectation and pride of what we had achieved; 18 Chalmers students now had host companies waiting to welcome them in what would be their new home cities. We had proven Jay-Z right: there's nothing you can't do. You just have to believe it.

To kick off the US experience with a common week in New York is an old CETAC tradition, and a highly appreciated one. This trip is the time for celebrating that the adventure is to begin and to thank each other for a successful year together in CETAC.

Together with the students from our sister organization USASIP we spent our time enjoying the beautiful city of New York and its never ending possibilities.

During the week, the students visited Empire State Building, the Statue of Liberty, Central Park and many other famous spots. We also had time to enjoy a baseball game at the huge Yankee Stadium. At that point, if anyone had doubted it earlier, we all realized that baseball is kind of a big deal in this county. The game we saw was not at all crucial for the outcome of the American League and yet the stadium, with a capacity of 50 000, was pretty much full. I believe it also told something about the grandness of this country, everything is bigger here.

The two groups of students from Chalmers also found time to visit the American-Scandinavian Foundation at their headquarters in Scandinavia House on Park Avenue. We received a very warm welcoming and got the reassuring opportunity to ask questions to people who knew all about the United States and its rules and regulations. The visit at ASF was very appreciated among the students.

Eventually, and sooner than most of us had expected, the day came that was go-

ing to be the last day of our trip to New York. That night we all went out for dinner, and continued for drinks at a roof top bar that offered a view that no other city in the world could compete with. We cheered for the group and wished each other good luck. Promises about staying in touch and visiting each other were soon made and the mood was on top.

“ **THE REAL ADVENTURE STARTED WHEN WE HAD TO SPLIT UP AND LEAVE FOR OUR FINAL DESTINATIONS** ”

We, the members of CETAC 2012, had a fantastic week in New York which is truly one of the most inspiring cities in the world. However, this trip was only the beginning of something much bigger. The real adventure started when we had to split up and leave for our final destinations. We have all had different experiences after that and I hope that you will find the individual stories in this magazine entertaining and inspiring. ■



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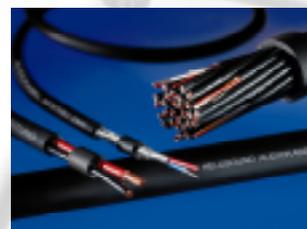
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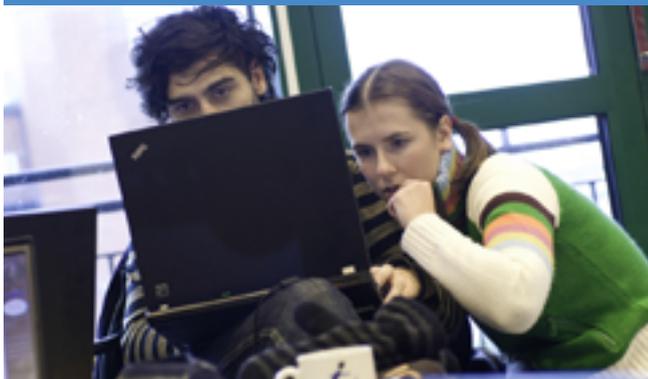
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AUTHOR JONAS FLYGARE PHOTOS CETAC 2012

After an intense and rewarding year as a member of CETAC I found out during a ski trip in the Italian Alps that I was going to Santa Barbara, California for a six month internship at Cbrite Inc. I was super excited to finally go to the land of opportunity!

On May 30th Linnea and I entered the United States at JFK international airport in New York City. The next day we took the bus upstate for a few awesome days in Ithaca. Well back in NYC it was time for some exploring and I found my favorite spot; Bedford and Grove. On the corner of Bedford and Grove Street on the lower part of Manhattan in the Village lies the building which was portrayed as where the characters of the series Friends, the greatest sitcom ever made, lived. The time in NYC was great and I had a lot of fun with the rest of the members. Just relaxing in the sun in Central Park, eating ice cream and watching the great softball team "Honey Badgers" was awesome! To push this journey into high gear it was now time to switch coasts. My flight to California was due to depart early in the morning and I decided to spend the night at the airport in Newark. So I did take that ride, across the river, to the Jersey Side.

California! I arrived to the golden state and Santa Barbara the day before I started working. I really appreciated the fact that I already had found a place to stay and a ride from the airport. The intern from last year, Kristoffer, picked me up and drove me to my new apartment where he and his American roommate currently lived.

“ SO I DID TAKE THAT RIDE,
ACROSS THE RIVER,
TO THE JERSEY SIDE ”

Santa Barbara is a small town in California with a population of about 100,000 people. It is located about a two hour drive northwest of Los Angeles. The Spanish heritage in Santa Barbara is apparent and is celebrated during the great five day festival in august called Fiesta. The climate here is great. Compared to the weather of Sweden's west coast, the contrast is huge. Rain is not really an option! I have not yet explored that much of the nature outside the city but I definitely want to go hiking in the beautiful surrounding mountains in the near future.

Since my haircut suggests it, the ocean invites to it and I have access to about seven boards in my apartment, I have been surfing. There are a lot of beautiful spots around the area to hit and it is awesome!

The city of Santa Barbara is not a stressful place. I find my walking pace a bit higher than the average here, but I am learning. Downtown on the main street called State Street is where you find most of the restaurants, bars, shops and other places you would want to visit. At the end of the street lies the beach and the pier which is a nice place to sit down and just relax.

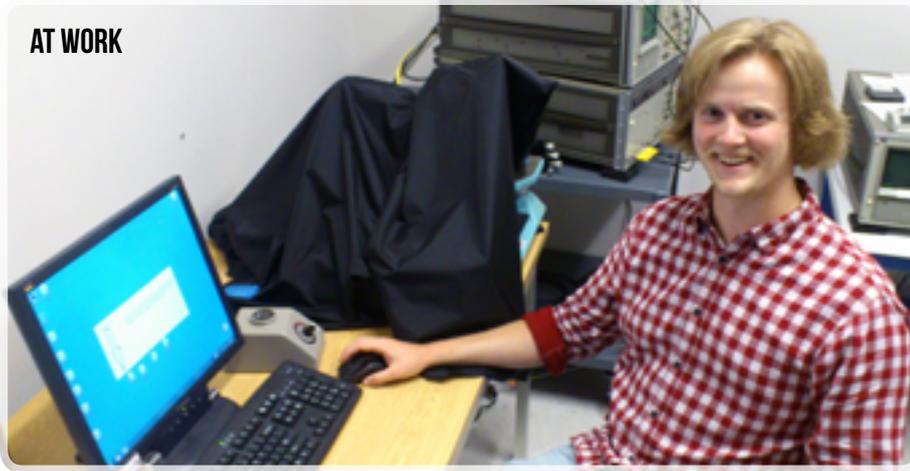
I live in Santa Barbara but work in a town named Goleta, located ten minutes to the west. The company I am working for is called Cbrite Inc, a small company doing research and development in the area of TFTs, thin film transistors. These small devices make up the backplane of flat screens and control the individual pixels of the display. Since the technology of today is soon going to be insufficient to drive future higher density displays, Cbrite is working on new solutions in this area.



I JUST REALIZE WHERE I AM



FROM THE PIER IN SANTA BARBARA



AT WORK

The metal oxide TFTs is a particular interesting and promising technology that Cbrite is developing. The area is a mix of electrical engineering and physics so my background in engineering physics provides me with basic knowledge of the subject. During this summer I have learned a lot of new things and now after the first two months, my theoretical knowledge is fusing with the practical experience from work. My main task is the testing of different devices and setups to find out why things are behaving the way they do. The people at work are really friendly and I like what I do a lot. Every day I learn something new and it is very interesting to look into the physics behind the results. The semiconductor physics is tricky and I look forward to learn more about it and how the technology can be developed further during the rest of my internship.

I have experienced a lot of great things so far in the US. Some of the highlights of Santa Barbara are the nice people and the city, my work, the surfing and of course the great Alan Jackson concert at the Santa Barbara Bowl, an outside theatre up in the mountains. The cultural experience of coming to a new country is so awesome. Just sharing the apartment with my American roommate is a lot of fun! I still have a lot of things to do here and as the final version of this text is written I have some

friends from Sweden visiting for two weeks and we sure have some cool stuff planned!

I would like to thank all the companies that contributed to make this journey possible, the ASF for all the help with the paperwork, Cbrite Inc for having me as an intern, my parents for their support, the board and the members of CETAC and everybody else who deserves it. THANK YOU for helping me catch the American dream! ■



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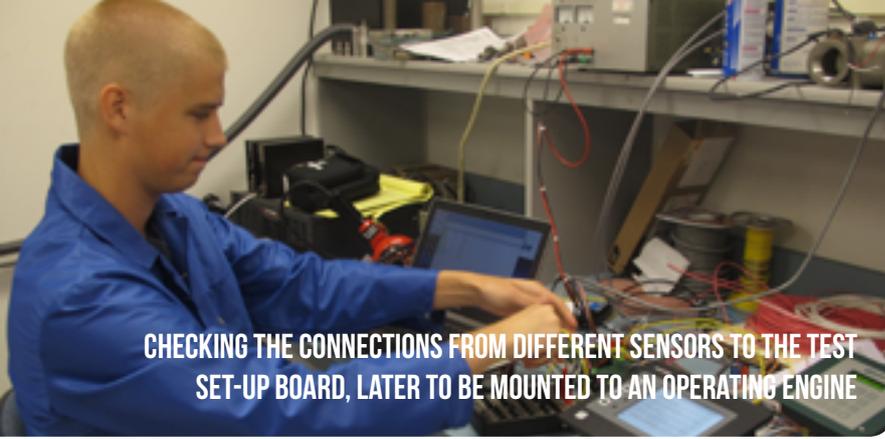
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ME AND MY GIRLFRIEND IN CHICAGO

FROM OHIO WITH LOVE



TIMES SQUARE

MY AMERICAN ADVENTURE STARTED OUT IN NEW YORK CITY TOGETHER WITH SOME OF MY BEST FRIENDS AND MOST OF THE MEMBERS OF CETAC. DURING THE WEEK WE MANAGED TO COVER A LOT OF DOWNTOWN MANHATTAN. WE WALKED ACROSS THE BROOKLYN BRIDGE, VISITED TIMES SQUARE, WENT UP THE EMPIRE STATE BUILDING, WENT FOR A RUN IN CENTRAL PARK AND WENT TO A MUSICAL ON BROADWAY.

The week in NYC passed too fast and it was time for me to say goodbye and continue my adventure on my own. The destination was Altronic LLC, Girard, Ohio.

After a short flight from NYC I arrived at Pittsburgh airport, PA. I was in a good mood and eager to meet the man from Altronic who was going to pick me up and give me a ride to the hotel. He turned out to be a fairly old man with a great sense of humor. He made me feel comfortable right away. The apartment at the hotel was really nice, I had two 50" flat screen TVs, a king size bed and not to mention room service.

I would say the biggest difference between living in the US compared to Sweden is the infrastructure. It is impossible to get around without a car. The first weekend I got really bored in the hotel room. I did not have a car at the time so I tried to go for a walk. It turned out not to be such a good idea since I only managed to walk around the block with no way to get across the streets surrounding my hotel. I had heard it might be hard to get around without a car but I did not think it would be impossible.

The first two weeks at work passed by really fast even though a lot of things happened. I got my own workspace and a big truck to be able to drive back and forth from work on my own. I even got to go on a field trip to an engine site in Clymer, PA. I initially worked alongside some more experienced co-workers, learning about a project called ESI (Exhaust Sensor Interface). The focus of this project is to improve the performance of a natural gas engine and at the same time minimize emissions by using advanced sensor technology. I have continuously been working on this project since my first day at work.

Altronic is a really great place to work with a lot of interesting projects and nice people. One thing that is different from working in Sweden is that a lot of the people at work spontaneously stops at my workspace making conversation about nothing and everything. In Sweden we would probably just greet and then continue with whatever we were doing at the moment. These small conversations are a natural part of work here. Some of my co-workers are really into running and biking. At one time they took me with them to try road

biking on one of those fast bikes. This was the first time I ever tried biking in that manner, but it will certainly not be the last. I am really glad I had the opportunity to get to know a few of them outside work as well. One of them is a Swedish guy called Christian, who has been here together with his family for almost a year. Christian and his family have been really nice to me the entire time I have been here, often inviting me to their home for barbecue evenings together with their American friends and neighbors. They even took me with them to Lake Erie at one time.

Right now I am analyzing data collected from the field tests at the engine site related to the ESI project I mentioned earlier. Another project I am involved in is to make a map to enable Altronic's customers to predict the flow rate through a fixed orifice. I have done some research to find a flow equation that describes the flow through a fixed orifice. I will soon get some help to do real measurements to see if they fit the equation or if it needs tweaking.

AUTHOR EMIL STAF PHOTOS CETAC 2012

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BEST US MEMORY
THE TRIP TO NIAGARA FALLS

At the end of June I travelled to Chicago for a weekend to meet up with my girlfriend Karin who was going to spend 6 weeks together with me here in Ohio. This trip turned out to be a lot of fun. The first day I met Karin's host family from when she was an au pair for a year. We had a barbeque evening during which we ate burgers, drank beer, played American football, baseball and even played some guitar. On Saturday it was time to explore downtown Chicago which we did together with some of Karin's friends. The day started with some sightseeing and I got to see Willis Tower (previously Sears Tower), Cloud Gateway or "The Bean", a great Fountain with the skyline of Chicago in the background, the east end of Route 66 and much more. At the end of the day we went to a bar up in the Hancock Building, where we had a beautiful view of Chicago, in particular the Willis Tower later at night. This ended a most perfect weekend in Chicago and early on Sunday morning we flew to Ohio where we were going to spend the next 6 weeks together.

Back in Ohio the weeks passed by with me working and Karin studying at cafés or at the hotel. By the time I got home from work we

were both really hungry and usually to lazy to cook so we had to head out for dinner. Since Karin had already spent a year in the US, she knew a lot of good restaurants that she wanted to take me to. As there are so many restaurants, it was no problem going out for dinner to a different one every night. The hotel where we were staying was located in Boardman close to a big and beautiful park called Mill Creek Park. During our stay at the hotel we visited the park twice and I also got to run almost 13 miles (20 km) with some of my colleagues there as well. After only two weeks it was time for us to leave the hotel room for a real apartment. We ended up living in the same area as Christian and his family which turned out great since we had the opportunity to join them for more evenings just grilling and hanging out.

Niagara Falls is probably the most beautiful place I have ever been to and I got to go there with my girlfriend. A lot of the people we talked to told us that the Canadian side has the better view. When we got to the falls

we walked really close to Horseshoe Falls. It was a spectacular feeling which only got better with the amazing view. For only \$15 we got to go by the boat called the Maid of the Mist to see the falls from beneath and feel all the power being transmitted into the boat. After we had been watching the falls from the American side all morning we crossed Rainbow Bridge to get over to the Canadian side. By the time we got to Canada we were pretty hungry so we went for lunch. Happy and full we went to see the falls from a different point of view, the Canadian side. It turned out that the Canadian side was a lot better as everyone had said and the view almost gave me goose bumps.

Cedar Point is the best amusement park in the world (that is what their homepage is saying anyway). Karin and I went there together with our good friends and neighbours Charlotte and Jake. We rode an attraction called Millennium Force which had a top height of 310 feet (100 meter), maximum speed of 93 MPH (150 km/h) and was the best roller coaster I have ever tried. We stood in line for a roller coaster called Top Thrill Dragster which a lot of people have said is the best. We never got to try it since they closed the whole amusement park due to a really bad storm that was on its way. That was a bit of an anticlimax. Next time that coaster is going down.

At the time of writing this article I have been in the US for 2 months and have spent 6 amazing weeks of them together with my girlfriend Karin. I am so glad that she could be here for such a long period of time which made it possible for us to do a lot of fun activities together and meet a lot of nice people. I am now looking forward to have some of my best friends visit me in near future, which is going to be awesome.

This is only the beginning of my adventure and I am looking forward to see what the rest of it has to offer. Many thanks to CETAC 2012 and Altronic LLC, who made my trip to the United States of America possible. ■

ME, KARIN AND NIAGARA FALLS

SUN, AGVS AND AN ENDLESS BEACH

I GOT OFF MY AIRPLANE, PICKED UP MY BAG AND WENT OUTSIDE. MY GLASSES FOGGED UP FROM THE HUMIDITY, THE HEAT HAD ME SITTING DOWN ALMOST IMMEDIATELY AND THE SUN WAS SO STRONG MY EYES WERE HURTING. THE SUMMER THAT WOULD BE THE BIGGEST ADVENTURE OF MY LIFE HAD JUST BEGUN!

AUTHOR JONAS LANDBERG PHOTOS CETAC 2012

I had arrived at Jacksonville airport, and was waiting for my ride to St Augustine, Florida, where I have lived since. The weather here sure is warm. With a mean temperature of almost 90 F or 32 C and an average humidity of 80 % during the summer, the sunshine state lives up to its name.

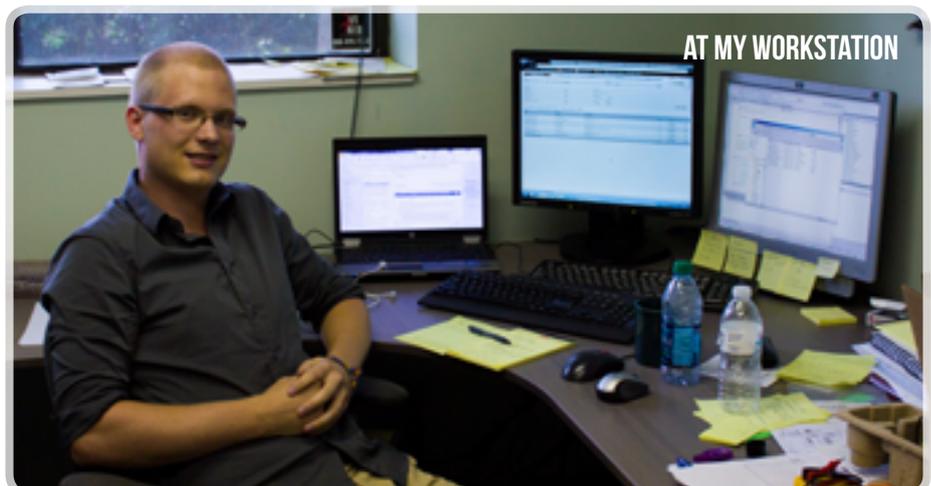
I am working at Amerden AGVS, a small company specialized in Automatic Guided Vehicle Systems. An AGV is basically a machine that can automatically perform tasks, such as handle transportation of load or taking care of a storage room. Amerden helps design the vehicles after each customer's needs, produce all the software required, install the entire system on site, test it and support it.

My part in the chain is usually the software part, although I have also been doing some electrical wiring, schematics design and even a small demonstration of one of the AGVS to a potential customer. One of the best benefits of working at a smaller company such as Amerden is that you are not locked down to just one type of project, but instead constantly challenged with different tasks. Because of that I have learnt extremely much these

months, and will probably continue to evolve even more during my coming months here.

Since I got here I have completed a test system in the garage right outside the office. To do this I have been going through all the same things that I will when working with customers. To start off I had to create a layout with paths, stations, turns and so on for the AGV. This is done in AutoCAD. I wrote the machine code in a special programming language called ACE, AGV Control Executive. This code will provide the AGV with instructions on how to pick up or drop pallets, or how to

move from one station to the next . The actual logic for the system is not handled locally on the AGV but remotely, via WiFi. A software called DeCarte has already been developed for this in the programming language C#, but for each new system it has to be configured, which for me meant learning yet another programming language. Apart from the software side, I have also been working with some mechanical issues, like replacing the batteries or figuring out why the forks were so noisy.



I have also done some rewiring on the truck to install new functions and components. All in all the work with this system has been very rewarding and educational for me.

However, Florida has more to offer than expertise in AGVS. St Augustine is United States' oldest city, founded by Spanish explorers in 1565. To us from Europe that is not an old town, but here it is a bigger deal. Combine that with an almost endless beach and a nice and warm climate and it is no wonder there are so many tourists here. My best recommendation this far would be to put on swim trunks, jump on a bike and just ride down to the beach. If ever visiting I would also recommend a tour downtown to look at all the small tourist shops and maybe catch a glimpse of the old man playing 10 instruments at once in one of the alleys.

St Augustine is not world famous for its surfing, but on a good day the waves are still rideable. I have only had the opportunity to try regular surfing once this far and even though I did not do too well, I still feel like it was a great deal of fun. I have also tried skimboarding, which looks incredibly easy, but turns out to be quite a challenge. Unfortunately, falling when skimboarding means falling right on the sand, which can be quite painful. Thankfully there are more relaxed things to do at the beach too, such as sunbathing, throwing a ball with a mate or just go for a swim. Living by the beach sure is awesome!

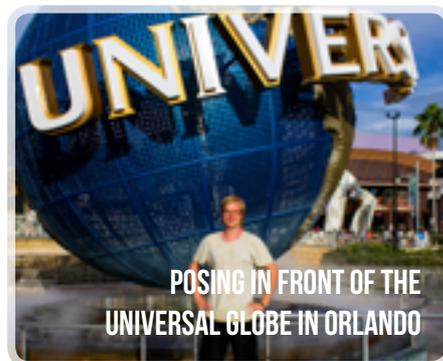
JONAS LANDBERG

AGE 22

BACHELOR ENGINEERING PHYSICS

BEST US MEMORY

VISITING ISLANDS OF ADVENTURE (UNIVERSAL STUDIOS) IN ORLANDO



POSING IN FRONT OF THE UNIVERSAL GLOBE IN ORLANDO

AMERDEN AGVS

EMPLOYEES 9

LOCATION ST AUGUSTINE, FL

WEB AMERDEN.COM



ONE OF THE WATER RIDES AT UNIVERSAL STUDIOS

The theme park capital, also known as Orlando, can be found only two hours away by car. My visit at Universal Studios is something I will probably remember for a long time to come. Not only did they have amazing rides but the atmosphere and abundant decorations all over the park really made it a special visit. I have never been much for scary attractions, but I must say that rides such as the Dragon Challenge truly impressed me. As an addition to that, the water rides were out of this world.

I would like to thank my supervisor Jonas Ohlsson for everything he has taught me this summer, President of Amerden Roland Andersson and everyone else working at the company for making my stay this far so great!

Sitting at home on a night like tonight I cannot help but wonder what the rest of my year here at Amerden will be like. The only thing I know is that beyond the thunderstorms the adventure continues.

I sure am living the dream! ■



POSING IN FRONT OF THE WHITE HOUSE

SUN AND DATABASES

A SUMMER IN RALEIGH



ME ONBOARD THE USS NORTH CAROLINA BATTLESHIP

ON THE MORNING OF MY 22ND BIRTHDAY I STARTED MY BIGGEST ADVENTURE SO FAR IN LIFE. ME AND 4 FRIENDS TOOK A FLIGHT FROM GOTHENBURG TO NEW YORK FOR WHAT FELT LIKE A VACATION, BUT WAS ONLY THE BEGINNING OF MY TIME IN THE US

AUTHOR & PHOTO JESPER ERIKSSON

Arriving in New York me and my friends met up with more members from CETAC and USASIP. USASIP is a sister association to CETAC for other programs at Chalmers. We spent some wonderful days together in the city doing a lot of sightseeing, including the Empire State Building, Central Park, Yankee Stadium and many more landmarks. After five days in New York I went down to Raleigh by buss together with a member of USASIP also named Jesper. In Raleigh, me and Jesper took separate ways and I was picked up by a co-worker called Passon who drove me to his house. I rent the house I live in together with two co-workers: Michael and Mattias.

Michael works as a designer at ABB and Mattias is a student from Linköping University who is also working for ABB during the summer. I arrived to Raleigh before Mattias and should have started work-



ing a week earlier than him. Due to some problems in the contact between my department and HR, I could not start as intended and I suddenly had a free week to explore Raleigh. The problem with Raleigh is that you can not go anywhere without a car so I was a bit stuck before I got one. Fortunately, the director of engineering Ulf had more than one car. I borrowed his Mercedes during the first couple of days to be able to explore the city I would live in for the next six months.

A week was not near enough time to explore Raleigh, the Capital and the second largest city in the state of North Carolina with a population of over 400 000 people.



AT WORK

ABB INC

EMPLOYEES 300 000 WORLDWIDE

LOCATION RALIEGH, NC

WEB ABB.COM



ME WITH MANHATTAN SKYLINE

JESPER ERIKSSON

AGE 22

BACHELOR ENGINEERING PHYSICS

BEST US MEMORY

THE FOURTH OF JULY
CELEBRATIONS IN DC



THE WASHINGTON MONUMENT

Raleigh is a part of the Research Triangle - an area in NC with many technology companies and colleges. One of the colleges in the area is North Carolina State University (NC State). ABB is located at NC State's campus and I have got to know some students that cycles semesters between school and ABB.

After a week of exploring the city Mattias arrived and it was time for our first day at work. I had returned the car I had borrowed so we rode to the office with our roommate Michael. At the office we met Ulf who introduced us to people at the office and showed us our workplaces. The first week was all about understanding how they work at ABB and to get everything set up so I could start with my assignment.

My work at ABB so far has been to build a database in Microsoft Access where the employees can log errors that has been detected in their drawings during a project. They also want me to make a user interface where the user can add drawings to the database, create reports and export the data to other applications.

I have never worked with databases before and my supervisor wanted me to do

the programming in VBA (Visual Basic for Applications), a programming language that I have only used once before. Even if I did not know that much about databases initially I have learned a lot and it has been a great experience.

Me and Mattias did not have a car at first and we had to go with Michael if we wanted to do anything during the evenings and weekends. My first trip was driving down to Myrtle Beach with Michael and Mattias where we spent the day. The fourth of July was a Wednesday so I took two extra days off from work and went up to Washington DC to visit Julia and Ronny, two fellows from CETAC, and to celebrate the National day. Jonas, another member of CETAC was also staying there during the weekend and the four of us had some great days in the capital with a lot of sightseeing for me and Jonas and beautiful fireworks at the evening of Fourth of July.

When I got back to Raleigh after five days in the capital, my roommate Michael had registered me on his insurance and arranged so that I could rent a car. The only problem was that to be able to use the car during the six months I had planned to be in the US, I had to get a North Carolina drivers license. Finally with a car, me and Mattias could drive to places around Raleigh on our own. We also went on a road trip to Wilmington where we visited the USS North Carolina battleship; one out of ten fast battleships that served in the Pacific during World War II. Since we had already driven all the way to the coast we decided to take the opportunity to visit Carolina Beach too.

Mattias will soon leave Raleigh and I will surely miss the Swedish company. I do not yet know who will be my new roommate but I am looking forward to get to know another new person. At work I still have work to do with the database. We recently had a meeting and they now want me to add even more functionality to the application. I hope that I will get the opportunity to visit more friends from CETAC during the fall.

At last I want to thank CETAC and the people at ABB for giving me the opportunity to work and experience a life in the US. ■





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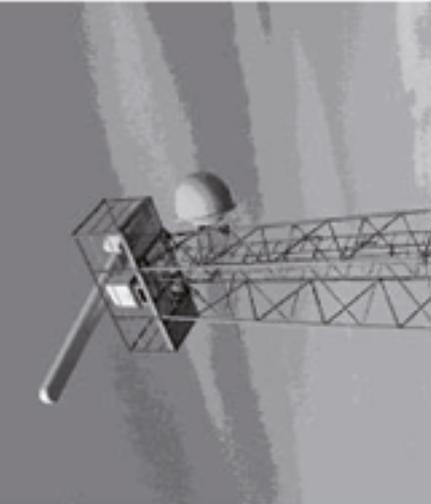
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CALIFORNICATION

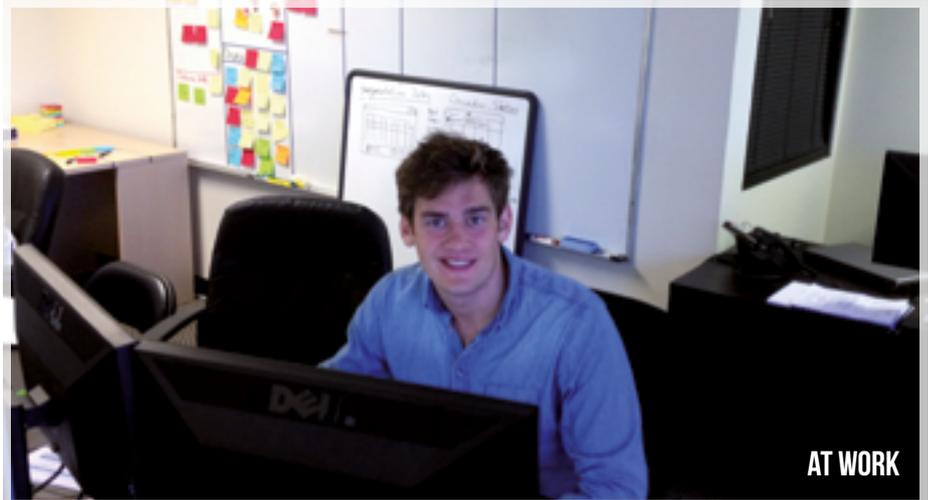


I WOULD SAY THAT IT FEELS RATHER WEIRD TO WRITE MY TRAVEL REPORT RIGHT NOW. AFTER ONLY TWO MONTH AND FOUR DAYS IN THE US, IT STILL FEELS LIKE I JUST GOT HERE. IT FEELS LIKE I HAVE NOT BEEN HERE FOR MORE THAN A WEEK, AND AT THE SAME TIME IT FEELS LIKE AN ETERNITY SINCE I LEFT GOTHENBURG AND SWEDEN. THERE HAVE BEEN SO MANY NEW IMPRESSIONS HERE, EVERY DAY!

AUTHOR & PHOTO: VIKTOR ANSUND

There have been so many things to take care of to get settled. Like buying a car, getting an apartment, buying furnitures to put in the new apartment and so on. This and everything that is new at work makes the weekdays go by very fast, and all of a sudden it is Friday afternoon. You would think that the weekend is the perfect time to work on things like getting a car, and maybe it is. But there are also so many other things going on, I have met new friends and there are many things to see and experience, and in San Diego we have a lovely beach to spend time at. Therefore the weekends also fly by, and here I am two month into my year in the US.

I really enjoy my work. I can choose what task I want to work with, I get to be a part of the discussions regarding what we need to implement next and they are amenable



AT WORK

to new ideas. For one, I have introduced a Kanban board at the office. We work in ActionScript on the frontend, and Java on the backend. Actually, I have grown to kind of like Adobe Flash, at least a little. ActionScript is very similar to Java, and it works exactly the same in every browser. The cons are that it has to be compiled and you need to have Flash installed. It may

also be less efficient than other solutions. The people at the office are very cool, and also very diverse! Other than Americans we have a Russian, an Estonian, an Indian, a Canadian, and a couple of Swedes and French people at Anamatrix. We have software developers, marketing and sales people even though we are only 20 people in total.

ANAMETRIX

EMPLOYEES 20

LOCATION SAN DIEGO, CA

WEB ANAMETRIX.COM

VIKTOR ANSUND

AGE 22

BACHELOR
SOFTWARE ENGINEERING

BEST US MEMORY
THAT BEACH, SURF AND SUNSHINE
IS A PART OF MY EVERYDAY LIFE



I must say that I am starting to understand the rhythm here in San Diego. One can say that “the californication” has started. I have become more relaxed and chill since I got here. It is much more fun to work than to study, you kind of do the same things, and and you learn at least as much as in school, if not more. You do not have any exams and when you go home, you do not have to bring the work with you. In Sweden we are fostered to be outside as soon as the sun is shining, or at least feel guilty if we are not. Here, it is always sunny and 25°C. It rained one time for 10 minutes, but the ground barely got wet before it was all dry again. The weather can have something to do with why everyone is more relaxed here in San Diego. As I mentioned, to “hang out at the beach” is a common leisure activity here and there is a lot of “surf dudes” living in this city.

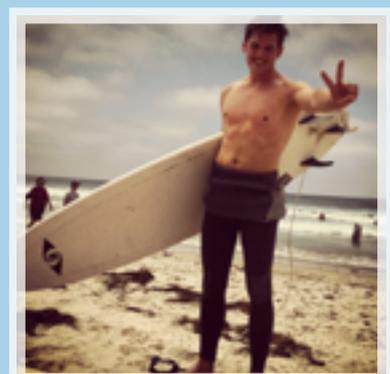
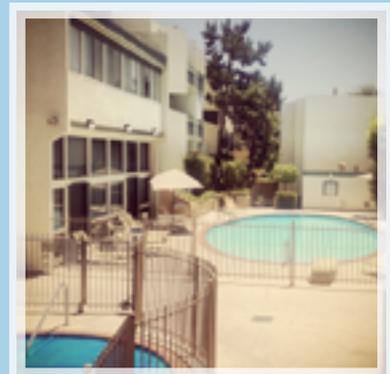
Surf shorts and flip-flops a very common outfit here. Even though I prefer a shirt and chinos to a t-shirt and shorts, it is kind of nice to have the opportunity to dress down on a lazy day. Since I work at a software startup, we do not have any dress code at all. Even here, shorts and flip-flops is almost customary. Neither have we any working hours, you work when you want to and as much as needed to get the job done, though 40 hours weeks is the guideline. For me, that usually means 9.30 AM to 7 PM. You can also work from home sometimes, and I have occasionally stayed at the office until midnight. I feel almost as free as when I was working on my bachelor project earlier this spring, and I like it.

One thursday afternoon, me and my friend Pontus went to Los Angeles to the taping of the season finale for the TV-series Californication, season 6. As a fan of the show, it was awesome to see all the actors from the show, and [SPOILER ALERT] we got to be part of the crowd in a concert with Marilyn Manson, and a wedding! This will maybe be part of an episode in season six. I have never been on a film set before, and it was an interesting experience. They filmed every sequence 3-4 times, and it was only Marilyn Manson who sang his songs to the end. He did not do any retakes either. The set lasted for about 5 hours and we got t-shirts, dvds and cds for participating.

Los Angeles is a very big city. I have been there twice, but have not seen half of it. One of my friends living in LA showed us Venice Beach. It was a really cool place, with a lot of strange people where everyone really want to be seen.

This adventure has been amazing so far, and I still have ten more month to experience. To know about them, ask me at the next alumni event.

Thanks for reading! ■



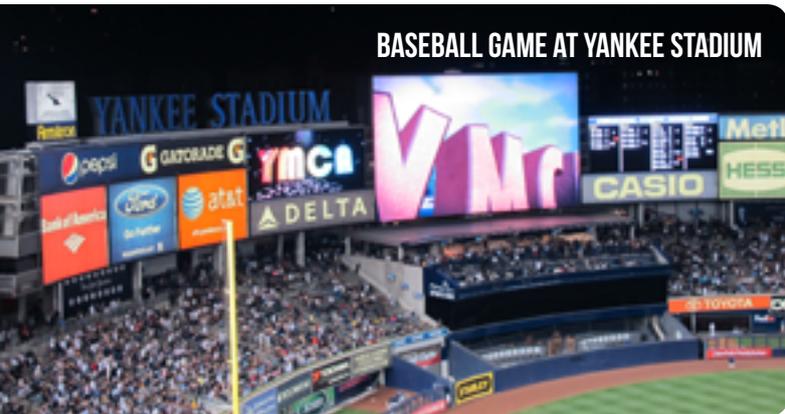


ME AND MY BOYFRIEND MARTIN IN LITTLE ITALY, NEW YORK



AFTER WORK AT THE BIG RED BARN

ITHACA IS GORGES



BASEBALL GAME AT YANKEE STADIUM



VIEW OF MANHATTAN

ARRIVING TO THE LITTLE HIPPIE TOWN ITHACA AFTER A FIVE HOUR BUS TRIP UPSTATE NEW YORK, I WAS SURPRISED BY HOW GREEN SOME PARTS OF THE US ARE, BOTH THE ENVIRONMENT AND MINDSET. ONE THING I HAVE LEARNED DURING THIS ADVENTURE IS THAT IT COULD BE TROUBLESOME TO SPEAK ABOUT USA AS ONE COUNTRY IN THE SENSE OF ONE HOMOGENEOUS CULTURE. IT IS HUGE, AND THE DIFFERENCES BETWEEN REGIONS ARE STRIKING. THESE TWO MONTHS IN ITHACA HAVE DISPROVED ALMOST ALL MY PREJUDICES ABOUT THE STATES.

Ithaca is kind of a special place. So do the locals and the non-locals tell you, and it takes a while before you understand what they mean by that. Apart from the amazing nature there is also the fact that this small town is populated by two very different kinds of people; Ivy league students at Cornell University mixed with the hippies makes it one of a kind. Everywhere you see signs in peoples gardens saying "No Frac" or "Go Green", hearing people playing country music and the house next door is a typical college student house with an old sofa on the veranda and hundreds of beer cans over flooding their recycle bin (everyone is recycling here of course!). There is a friendly atmosphere over the whole town and the presence of nature and wildlife, as

well as the great weather, makes you feel calm and happy. Walking home at night you will see blinking lights from fireflies everywhere, maybe encounter a deer or two and if you are unlucky, even a skunk.

After an amazing week in NYC together with the other CETAC members, my boyfriend Martin and my friend Christian, I took the bus to Ithaca. My internship at Cornell University was going to start already the next day and I was pretty nervous about what my summer was going to be like. I knew no one here, and I was not even sure of what I was going to do for my internship project.

Everything turned out really well though. Cornell is a very welcoming University and I have been a part of a research group at the Electrical and Computer Engineering department that is working with very fast transistors that they build in the clean-room. My project was about the communication between the computer and one of the measurement instruments, a microwave analyzer which they will use for testing their transistors. More specifically I have been writing drivers for IC-CAP in C++. IC-CAP is a very powerful software when it comes to controlling and analyzing measurements, but it is kind of messy when it comes to doing the required programming before you have your working driver ready for use.

AUTHOR LINNEA WIKMAN PHOTOS CETAC 2012

CORNELL UNIVERSITY

EMPLOYEES ~2000

LOCATION ITHACA, NY

WEB CORNELL.EDU

LINNEA WIKMAN

AGE 25

BACHELOR ENGINEERING PHYSICS

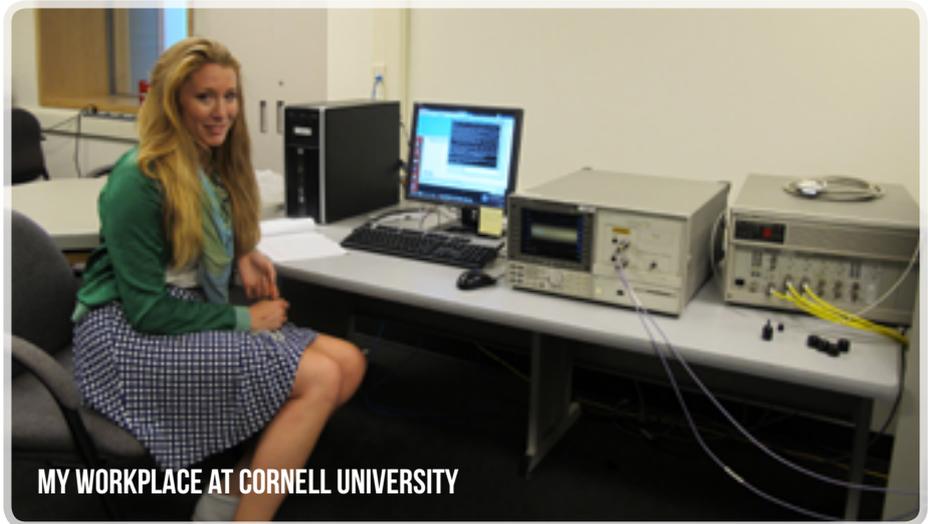
BEST US MEMORY

THE TRIP TO BOSTON WITH THE INTERNATIONAL STUDENT ORGANISATION TO CELEBRATE THE FOURTH OF JULY.

The reason that it is a bit messy, and also what makes it interesting and fun to work with, is because you are working sort of in between the hardware and the software; you are trying to communicate with the instrument on a basic level via the complex software on your up to date computer.

This project has also given me a much bigger insight on how computers and programs work and how they are built on a more fundamental level. With my background in Engineering Physics and quite limited knowledge in programming I was a bit worried that I would not be able to handle the programming part, but it turned out that the programming was the least demanding part of the project. The real challenge was to understand how a driver is built, how a program works generally since most of the time this part is hidden from the user. This internship is perfect for you if you like hands on problem solving and it includes all different areas of problem solving.

Ithaca is also a great place to spend a vacation. The area offers so many different leisure time activities it has almost been difficult to cover them all. First of all there are a lot of State Parks with waterfalls you



MY WORKPLACE AT CORNELL UNIVERSITY

can visit and go for a swim in or hike. One of the nicest day trips was when my professor took me, Martin and Christian on a boat trip on the beautiful Cayuga Lake. A wine tour around the lakes is also a must in this area since they have so many wineries. It is not too far to go to the Niagara Falls, New York City or Boston but you would probably want to do it for a weekend. For the celebration of the Fourth of July, I went to Boston with some other international students and I sort of fell in love with the city.

If you do not want to take the car anywhere, there is always something to do around; you could hang out in college town or go to the grad students after work at the Big Red Barn. Downtown Ithaca has a lot of nice bars and restaurants, and also music festivals now and then.

What always make a place most special is of course the people you meet there. Now when my summer at Cornell is over I will miss my friends here, in particular my roommates Michelle and Jesse. Cornell is an international University and now I have friends to visit all over the world.

Ithaca is gorges, so do the T-shirts and stickers say in the tourist shops. If you every go to New York, try to visit Ithaca. It would be a beautiful and friendly experience. ■



THE NIAGARA FALLS



WATERFALL IN ITHACA

EASY LIVIN' IN SAN FRANCISCO



I LEFT SWEDEN FOR SAN FRANCISCO JUST A COUPLE OF DAYS AFTER SCHOOL HAD ENDED IN THE END OF MAY. AFTER SPENDING ALMOST A WEEK IN THE CITY TOURISTING IN THIS MAGNIFICENT CITY, I TOOK THE TRAIN DOWN TO MENLO PARK AND MY TEMPORARY ACCOMMODATION AT A HOSTEL THERE.

This was the moment when it hit me what an amazing place Silicon Valley is. It turned out that my roommates were all into software in some way. Two of the guys were in the process of starting a startup, one guy was a freelance interface designer and the last guy was working at Facebook. In San Francisco and the bay area it feels like everybody has something to do with software. I lived at that hostel for about 3 weeks in total, some of that time together with fellow CETAC members Johan and Mattias. I later moved to San Francisco, but more about that soon.

I arrived at the hostel on a Sunday and my internship started the next day. I was a little nervous and could not fall back asleep when I woke up in the morning so I went to work quite early, maybe even a little too early because when I got there the place was pretty empty. The office is very big so there are areas that just have empty desks. You can imagine the feeling on my first day when I walked into the office and I did not see anybody, just a bunch of empty desks. For a second I imagined that Delphix had gone bankrupt. The re-

ality was far from that. I later found the more used parts of the office and someone that could tell me that I was early and that more people would show up soon.

I still think that my first day at Delphix was the most confusing day of my life. There was so much information to take in and so many impressions. Someone told me that it is always like that at a new company and I was inclined to believe him.

Since I started at Delphix I have met a lot of people outside work and when I tell them what Delphix does I never get a feeling that they understand what I am saying. I will nevertheless try to explain it once again. Most software applications are in some way connected to a database. When developing software it is therefore important for developers to have access to copies of the database. The developer want to run his software against the database during development but in case you mess something up you do not want the real database, you want a copy of it. The process of provisioning a database to a developer

DELPHIX

EMPLOYEES 70-80

LOCATION MENLO PARK, CA

WEB DELPHIX.COM

ANTON WERNVIK

AGE 24

BACHELOR
SOFTWARE ENGINEERING

BEST US MEMORY
LIVING IN SAN FRANCISCO

is traditionally very slow and harms productivity. Delphix's application solves this problem by speeding up database provision by virtualizing the databases. I will not go into it more than that but I hope you have a general understanding of what they do.



THE GOLDEN GATE BRIDGE



The second week another intern from Sweden started. It felt good that I would not be the only one who did not understand anything. We have since worked on a couple of different projects together. Working at Delphix is a constant learning experience and I am very happy that I have gotten the opportunity to come here. The engineers are incredibly talented and everyone is very willing to help if you have any problems.

As I mentioned previously I moved to San Francisco after a couple of weeks in Menlo Park. More specifically I moved to North Beach, which is also called Little Italy. The neighbourhood is loaded with pizzerias which makes me feel just like home.

Outside work I have spent a lot of time exploring San Francisco, it is an amazing city. Coming from Sweden you are used to a flat landscape and San Francisco may be many things, but it is not flat. The weather is not great in the

summer but everybody says the best months are September and October. From what I have heard about the Swedish summer this year, I should not complain.

I have also been to Portland which is another great city. Portland has a slogan that reads "Keep Portland Weird" and I really got to experience the weird side of Portland. I was there for one weekend but I got to experience both Portland's Pride Festival and Portland Naked Bike Ride. The pride festival pretty much speaks for itself but the Naked Bike Ride was one of the most bizarre experiences I have ever had. There were literally thousands of naked people riding their bikes through downtown Portland.

In conclusion, I am very happy I came here and I would advice anyone who asks me to come to the valley and work for a fast-paced software company such as Delphix. ■



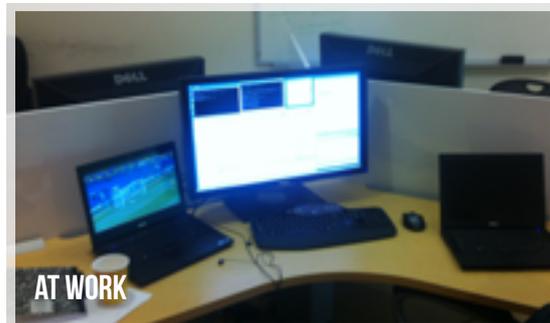
COLUMBIA RIVER GORGE IN PORTLAND



MOUNT HOOD IN OREGON



MUIR WOODS



AT WORK



THE COLUMBIA RIVER



STREETS OF SAN FRANCISCO



MASTER'S PROGRAMME INTERACTION DESIGN AND TECHNOLOGIES



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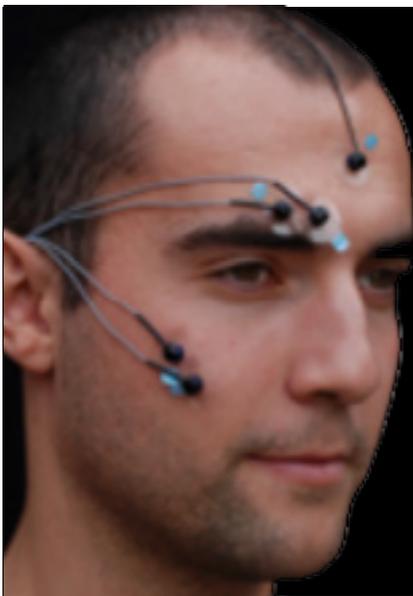
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ON A ROLL IN A CITY ON WHEELS

THINGS ARE NOT ALWAYS WHAT THEY APPEAR TO BE. DETROIT, THE HOME OF THE CAR INDUSTRY, BIRTHPLACE OF TECHNO, HOME OF THE RED WINGS AND A BIG REPUTATION, TURNED OUT TO BE A GREAT PLACE FOR FRIENDSHIP, ADVENTURES AND NEW EXCITING EXPERIENCES.

The adventure started sometime last fall in the Chalmers student union building with the CETAC admission process. The rules were simple, the first in line by a specific time and place got accepted as members.

The interest among the student was huge. The first students arrived over 24 hours before the specific time and all the available places was reserved around 20 hours before the set time. Luckily we both got accepted and our journey to America was started.

We had two eminent members in CETAC this year who spent all their time and effort on contacting companies and looking for new internship opportunities. This really gave us a flying start in the job hunt and we had several companies to send

our resumes to. We were lucky and struck gold on one of our first applications and got called to an interview with the Fraunhofer-Chalmers Research Centre (FCC), a company specialized in applied mathematics in Gothenburg. Eventually FCC was also the company that hired us both.

FCC has a lot of simultaneous projects and maintains several softwares. One of them is called Industrial Path Solutions (IPS) and is used to perform calculations on flexible parts such as cables, hoses and wire harnesses to investigate issues such as durability, clearance and manipulation forces.

FCC works closely with the car industry and has recently joined a cooperative project with General Motors (GM) regarding an implementation of the IPS software.

They were in need of two representatives over at GM's Tech Center in Detroit, Michigan and figured that we were suited for the job.

As we initially had no experience with IPS we got hired part time locally at FCC in Gothenburg to familiarize with the software. These two months were the first of our professional lives and we really got a good introduction by FCC.

Besides the really nice coffee machine and work environment we got lots of education and support from our supervisors. They were all very helpful and understanding and after two months at FCC we were ready to cross the Atlantic and commence our journey as visiting researchers at General Motors in Detroit, Michigan.

GENERAL MOTORS

EMPLOYEES 202 000 WORLDWIDE

LOCATION WARREN, MI

WEB GM.COM

America is a very cool place to live in and is in general very similar to Europe. Although all similarities the differences are sometimes very obvious. The cars are bigger, the people are bigger and strangers randomly spark up conversations with you in the supermarket. Our Swedish political right would be considered extremely left winged in the US and you can see churches and fast-food chains everywhere. There are huge suburbs with one story high houses, all built in perfect squares.

GM had a deal with a nearby hotel and accommodated us and several other students there during the summer. They also arranged breakfast, dinner and transportation to and from work. Spending a whole summer in a hotel had some great advantages but was also discomfoting

SIMON HALL

AGE 22

BACHELOR ENGINEERING PHYSICS

BEST US MEMORY

HAVING DINNER AFTER WORK WITH THE OTHER GM INTERNS STAYING AT HOLIDAY INN.

from time to time. The worst part was the lack of good cooking possibilities and the fact that the maids constantly regarded all my empty bottles and cups as trash.

The hotel was also the place where we met most of our friends. There were around 15 students in our age there at most, all working at GM, and we really had a blast over the summer. There were people from all over the world: Korea, India, America, Russia and China. We really became like a small family over the summer and had a lot of fun together.

NIGUL ILVES

AGE 22

BACHELOR ENGINEERING PHYSICS

BEST US MEMORY

RIDING ROLLERCOASTERS AT CEDAR POINT, SCREAMING FOR THREE MINUTES WITH HANDS IN THE AIR WHILE SPEEDING UP AND DOWN THROUGH THE PITCH DARK NIGHT

ONE DOLLAR PIZZA, ONE OF THE HIDDEN TREASURES OF NEW YORK



SO WHAT HAPPENS THIS WEEKEND? HOW ABOUT NEW YORK? OK.

General Motors turned out to be a great place to work at. Over the summer we worked on a software development project that implemented support for flexible parts in virtual manufacturing. We had to apply a lot of problem solving and engineering in our daily work and were given a lot of freedom in solving our tasks. GM also had a nice ping-pong table to our appreciation where we did a lot of creative problem solving over the breaks.

The work itself reminded us a lot of our recently completed Bachelor Thesis with the biggest difference being the constant economic perspective at GM. At the university it is almost always about education and science, at least as an undergraduate. At a company, business always comes first. The methods and approaches can be very similar but the ultimate question for a company is always: *how can we make money out of this?*

This focus was a little bit alien to us at first and it took some time to get accustomed to it. We spent a lot of time and effort on making business oriented presentations and nice reports that summarized the whole project quickly and accurately; something that was hard in the beginning.

I believe this is extra important in a big company such as GM since it is too big for everyone to be read up on everything the company does. Overall, this was a really valuable lesson to us and I believe that we will have great use of this insight and knowledge in the future.

This summer turned out to be one of our best summers ever. It has been a perfect mix of work and vacation and we have made friends for life.

Finally we want to thank everyone that helped making this adventure possible and everyone who made it great. ■



NIGUL IS OVEREXCITED WHILE BIKING AT THE MAKER FAIRE



AMAZING SCENERY OF NIAGARA FALLS



GENERAL MOTORS TOWER IN DOWNTOWN DETROIT



SKYLINE OF TORONTO

AFTER HARD WORK COMES SUN, SAND AND SPARE TIME



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ALCATRAZ FROM THE HILLS OF SAN FRANCISCO



JOHAN AND MATTIAS

NICIRA NETWORKS INC

EMPLOYEES 100

LOCATION PALO ALTO, CA

WEB NICIRA.COM



LUNCH IN SAN FRANCISCO WITH FRIENDS

THE STARTUP DREAM COMING TRUE

MONDAY JULY 23RD STARTED OUT LIKE ANY OTHER MONDAY, YOU'D GET IN TO THE OFFICE AROUND 9, GO AND GET BREAKFAST, CATCH UP ON THE WEEKEND'S EMAILS, TEST RESULTS AND THEN DIVE STRAIGHT INTO WORK. BUT THIS WAS NO ORDINARY DAY. THIS WAS THE DAY OUR COMPANY WAS BOUGHT FOR 1.26 BILLION DOLLARS.

Our names are Johan and Mattias and we have at the time of writing spent ten weeks of a six month internships at a company called Nicira Networks. We are virtualizing the network, and if our charismatic CTO Martin Casado is to be believed is this the start of a new era. But what does virtualizing the network even mean?

Much like computer virtualization has reduced lead time while improving performance, reliability and security in data centers, Nicira is designing software that provide many of the same advantages to the outlying infrastructure, the network. As of today, setting up, configuring and making changes to physical networks can be a costly and time consuming process.

With Software Defined Networking, SDN, and

network virtualization the logical and physical network can be decoupled. Changes to the network can be carried out within seconds with a mouse click without even touching the physical network. Moving many of the smart features and high-level networking services in networking to a separate software layer does also provide an opportunity to use cheaper and simpler hardware without losing any functionality previously held in proprietary hardware.

An acquisition like this where a smaller startup company merge with a huge organization like VMware with more than ten thousand employees comes with mixed feelings. From the startups point of view expanding is advantageous since it provides you with more firepower to keep doing great things, but on the other hand it can also lead to stagnation if

the buying company overwhelms the smaller and tries to change its path. For employees a merger almost always impacts the work culture and to integrate employees that at some point made the decision to not work for larger corporations but for smaller startups will also have its complications.

Luckily VMware shares Nicira's vision for virtualizing the network and have proven very keen to let Nicira continue its recipe for success. As startups cannot survive as startups forever an exit like this is probably one of the best and as our CEO Steve Mullaney nicely points out it should only be looked upon as the beginning of a new chapter. As of writing this it is our final week at Nicira and people in the office are excited to move in at VMware's campus on the other side of Palo Alto on Monday.

AUTHORS JOHAN NORDEVALL & MATTIAS APPELGREN PHOTOS CETAC 2012



JOHAN, MATTIAS AND THE GOLDEN GATE BRIDGE



JOHAN AT WORK

JOHAN NORDEVALL

AGE 22

BACHELOR

ENGINEERING PHYSICS

BEST US MEMORY

BUYING A MOTORCYCLE AND
PROMPTLY TAKING IT FOR A SPIN IN
THE CALIFORNIAN HILLS



JOHAN IN FRONT OF CASTRO
DISTRICT IN SAN FRANCISCO

My journey to California started out kind of unorganized after an amazing week in New York with my fellow CETAC members. I arrived in San Francisco on a Saturday two days before I was to start at Nicira and I had yet no place to stay for the night. Luckily I had scheduled a meeting with Mattias – my intern colleague at Nicira who arrived before me, Anton – who is interning at Delphix in Menlo Park, and Niklas – mine and Mattias' predecessor at Nicira. We chatted a bit about work and stuff to do in the area before Anton tipped me off about the hostel he was staying at in Menlo Park and just like that my housing problem was solved.



EXPLORING THE BACKROADS
IN NAPA COUNTY

The first couple of days at work, weeks even, started out feeling a lot like studying Engineering Physics sometimes does. The short version: pretty much like running into a brick wall. Repeatedly. On my first day I was handed a 300+ page technical manual on one of Nicira's main products, the *Nicira Network Virtualization Platform* and simultaneously as I was trying to familiarize myself with the existing code base I had been given the fairly small task of writing an automated test for checking that two hypervisors (computers, if you will) trying to identify themselves to a manager with the same security certificate does not cause Nicira's software to crash. How hard could it be?

Well, in retrospect, it was probably not as hard as I made it out to be. After my initial breaking-in period I have found that many of the problems you run into could be solved by either just pausing and thinking for a bit, or by asking your colleagues, who are very helpful and keen to lend a helping hand, if you only ask.

Switching from university studies to a somewhat 9 to 5 job (I'm in programming, after all) also means that you get your fair share of spare time. I have recently taken up running again and even though we live down in Silicon Valley there's tons of stuff to do here and San Francisco is just a 40 minute ride away. I have had a truly amazing summer. Highlights include travelling down the scenic Highway 1 to Santa Barbara and going to Six Flags Magic

Mountain nearby – need I say more than that it holds the world record with 17 roller coasters in the same amusement park?, biking over the Golden Gate bridge on a sunny day in the company of good friends, or why not something as simple as enjoying delicious 25 cent chicken wings and cheap beer in San Francisco!

I have also found love here. Raw, mechanical love from the eighties. In case you are wondering what I'm getting at here, I'm talking about my motorcycle! After spending ridiculous amounts of time searching for the perfect bike on the have-it-all website Craigslist I finally got lucky and managed to grab a classic single-cylinder, kickstart Yamaha SR500 from 1980 just a couple of hours after the seller posted it. Now, riding on 4+ lane highways can be a little bit intimidating at first but you soon get the hang of it, likewise when it comes to lane splitting which happens to be both perfectly legal and a great time saver during rush hours! What is also really great about being in California when it comes to biking is the fantastic weather here – not a single drop of rain has fallen for the entire summer, and that twisty, smooth roads are plentiful and never hard to find – perfect for clearing your head after a long day's work or just going out for a Sunday ride!

On a final note I would like to send my gratitude to my manager Henrik and the sponsors of CETAC 2012. You guys rock.



MATTIAS APPELGREN

AGE 21

BACHELOR
SOFTWARE ENGINEERING

BEST US MEMORY
HANGING OUT IN SAN FRANCISCO,
THE WORLDS SECOND MOST
BEAUTIFUL CITY

After being in the US and San Francisco Bay Area for almost three months I'm starting to get a feeling about how it is like to live here. Many people ask me how my stay has been so far and what the best thing about California is. My answers to those questions are usually kind of boring, something about that it is not much different from Sweden but the weather is better.

One thing that I did not expect before my arrival was how fast time would pass while being here. I would approximate the amount of things done in three months to be equal to maybe one month in Sweden, well, at least it feels like that.

Anyway. Since I have been to the California before and seen and done most of the things tourists usually do I feel comfortable just enjoying the moment and experience how it is living here and doing other things I like – cycling for instance. The question whether or not I should bring my road bike for these months was not really a question. It has given me a great opportunity to experience this area with its beautiful nature in my own pace and at the same time not to worry about eating too much of the delicious American food.

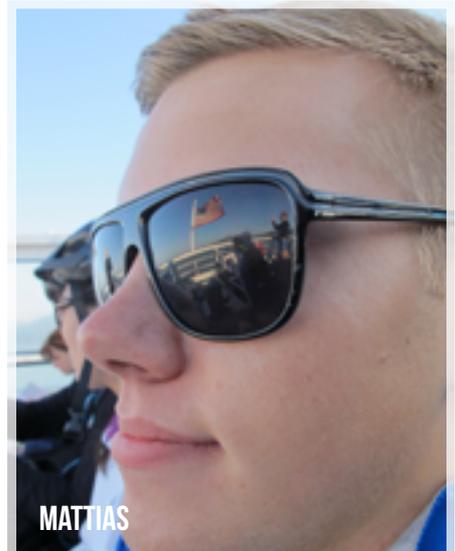
For me who has mostly been biking in Sweden the biggest difference is the hills and long climbs that this area provides. Around Gothenburg I do not know any hill that takes more than ten minutes to climb on a bike but here

we are talking 30 to 60 minutes of ascents at 6 to 10% grade. Even though there can be a lot of traffic, drivers are cautious and cyclists can feel safe rolling along the roads.

At Nicira there are many other people who share my interest and every week anyone is welcome to join the Thursday 5pm ride. In between these rides there is a lot of discussion about other rides people have done – maybe someone has got a new personal record on any of the benchmark climbs that exist nearby.

“ I’LL BE BACK ”

The most interesting thing about Silicon Valley is the people there and the companies that bring them. 40-hour workweeks are rare and I would say that the people in general are more focused on their career than anywhere else. During the summer I have taken the opportunity to attend many of the events that the technology companies host for students doing their internships in this area. Most of the events were open houses with some food, socializing and checking out the office but there are also larger events like hackathons. For those who have not heard of this concept before a hackathon is like a competition where small teams create some kind of



software product under a limited time, usually between 12 and 36 hours. This all ends up with presentations and a prize ceremony in front of a couple of judges.

My time so far has been great and I know my future stay will bring more memorable experiences. It will be hard to leave a place like California but I am saying like the former governor: “I’ll be back”. ■



NASA, OH MY DAYUM!

AFTER A LONG YEAR, FILLED WITH ANTICIPATION AND WHAT SEEMED LIKE ENDLESS AMOUNTS OF PHONE CALLS, IT IS DIFFICULT TO DESCRIBE THE FEELING THAT SETTLED WHEN WE FINALLY REALIZED THAT WE HAD ARRIVED IN THE STATES AND IT WAS TIME TO START OUR INTERNSHIP AT THE NASA GODDARD SPACE FLIGHT CENTER AND NVI INC

Ronny's journey started with his friend Emil who accompanied him from Landvetter Airport. In Berlin they met up with Johan and Michel after a visit to Burger King, the first but definitely not the last burger for the trip, and boarded the plane heading for New York. After a nine hour flight the hunger was really starting to settle again and as soon as the opportunity was given it was time for some food. Of course everyone had a burger. A better start would not be possible!

A couple of days later Julia's journey started in a similar fashion full of excitement at Landvetter airport together with friends Emilia, Rickard, Jonas and Jesper. Even though the first burger for the trip would have to wait until a few days later it was a great beginning for what was going to be a fantastic summer.

As most of the CETAC interns our adventure in the US was kicked off with an amazing week in New York City. After some days of serious sightseeing involving both spectacular views of the city, a baseball game at Yankee Stadium and some of the best burgers in the country it was time to set sight for the nation's

capital where we would spend our upcoming months.

The town where we live is called College Park which as the name indicates, is a university city that lies about 20 minutes with the metro from central Washington D.C. Here we share a house right by the University of Maryland together with three American college students, three cats, a bunny and various dogs. The university campus is huge and filled with beautiful old fashioned brick buildings with tall pillars, just as you see in the movies. On campus they pretty much have everything you can imagine from huge sport stadiums to a small farm. We have spent several afternoons cooling off in the summer heat by the university pool or working some of the burgers off at their gym and we are really looking forward to catching some college football games as soon as the season starts in the fall.

The east coast climate is something that has taken some time getting used to. For the most part of the summer the temperature has been close to 40 degrees Celsius with a very high humidity which often makes it seem even

NVI INC

EMPLOYEES 20

LOCATION GREENBELT, MD

WEB NVI.COM

warmer. We have been very thankful for the blasting air condition in all the buildings even though it always leaves us surprised when we go outside and the heat hits us again.

DC is a great city with a lot to see. We have spent some time there, hanging out in Georgetown which is a nice part of the city where most of the shops, pubs and restaurants are located, or going to many of the free museums and the monuments at the National Mall. The heat has kept us from spending too much time in DC though; most of our weekends have been spent at the beach. This is also where we got to experience one of the greatest things there are to do in this country: surfing!



THE BOMB SQUAD



COOLING OF ON A
HOT DAY IN GEORGETOWN



THE CAPITOL



FOUR REAL MEN AND MICHEL



WHITE MEANS WALK

The best thing so far about our stay here in the states, if you do not consider the burgers, is definitely the surfing. We have spent three weekends in Virginia Beach, which is about a four hour car ride from College Park (strongly dependent of the wonderful American traffic). We had originally booked a surf lesson for the first Saturday we went there, but since the weather forecasts had promised thunderstorms they rescheduled the lesson until Sunday. That did not stop us from trying to learn on our own through some tips from YouTube.

We can admit it did not go too well the first day. In the beginning we even had problem getting out to the spot where you are supposed to catch the waves. The waves just kept smashing into you all the way out and delivered a few mean punches. At the end of the first day a thunderstorm attacked the beach and the lifeguards called everybody out of the ocean before we got the chance to get our revenge. During the lesson it was so much easier though. The instructor made sure to help you with catching the waves, which meant you barely had to paddle at all, only

stand up. After a couple of more days at the beach our surfing skills got better and better and in the end we have managed to catch quite a few waves. Now we are completely hooked and we are making sure to go back as often as possible!

We have also had time to do some other road trips where we have gotten to know the special experience that is the American traffic. Since public transportation is not a very big deal here the roads can be crowded with traffic no matter what time of day it is and sometimes finding your way through the endless amounts of highway exits can be a bit of a challenge. Several times we have contemplated the idea of getting a GPS but somehow we have always managed to find our way without it even if it sometimes might take a couple of u-turns. On one of our road trips we visited the amusement park King's Dominion which is located about two hours from College Park. There they had some really good and very big roller coasters. The best ones are called the Dominator and the Intimidator.

JULIA RINGSBY

AGE 23

BACHELOR

ENGINEERING PHYSICS

BEST US MEMORY

CATCHING MY FIRST WAVE ON THE SURF BOARD AFTER GETTING SEVERAL BEATINGS FROM THE OCEAN

RONNY VIDEKULL

AGE 21

BACHELOR

ENGINEERING PHYSICS

BEST US MEMORY

FINDING THE BEST DEAL EVER, 48 CANS OF VANILLA COKE FOR \$11

One thing that is certain is that we will never enjoy the Swedish roller coasters the same way we used to.

It has not all been trips and vacations though. Every morning we drive about 15 minutes to get to work at the NASA Goddard Space Flight Center. NVI Inc, the company we work for is a contractor to NASA and part of a group working with a technique called VLBI. VLBI is an abbreviation for Very Long Baseline Interferometry and in short this technique can be described with several large antennas scattered over the planet which can measure signals from astronomical sources called quasars located at great distances from the earth. The signals from the sources will arrive at the measuring stations at different times and by measuring this time delay with a large number of observations it is possible to determine for example the movement of tectonic plates with millimeter precision, study the earth's rotation and perform other types of geodetic measurements. Since quasars are located at such far distances from the earth they are advantageous as a source because their position can be considered constant, making a stable reference frame.

The project we are currently working on is replacing part of the software NVI uses for their data analysis. This is done by programming in C++ and using a data format called netCDF which is a common format for storing data from atmospheric measurements.



This is something that neither of us had ever worked with before. In the beginning it was a lot of reading and studying tutorials and we have learned a lot, both about programming and the physics behind the measurements. The work is fun and rewarding but you also feel the pressure since NVI is planning to use the code we are writing for a long time.

We have been working with different parts of this project. The software we are developing will work with data from weather and cable calibration measurements of VLBI antennas all across the globe. The data from experi-

ments is saved in log files and goes through several steps before it will be fully analyzed. It is a few of those steps that our software will replace.

Julia's part of the project have mostly been focusing on the graphical presentation, plotting and editing of data while Ronny has been focusing on the part of the program that is more connected to the data management and a format called openDB. In order to make the data available to everyone it should be reachable no matter what platform or machine is used by the person trying to work with it.



BASEBALL GAME AT YANKEE STADIUM

This is why the open database format openDB is being used.

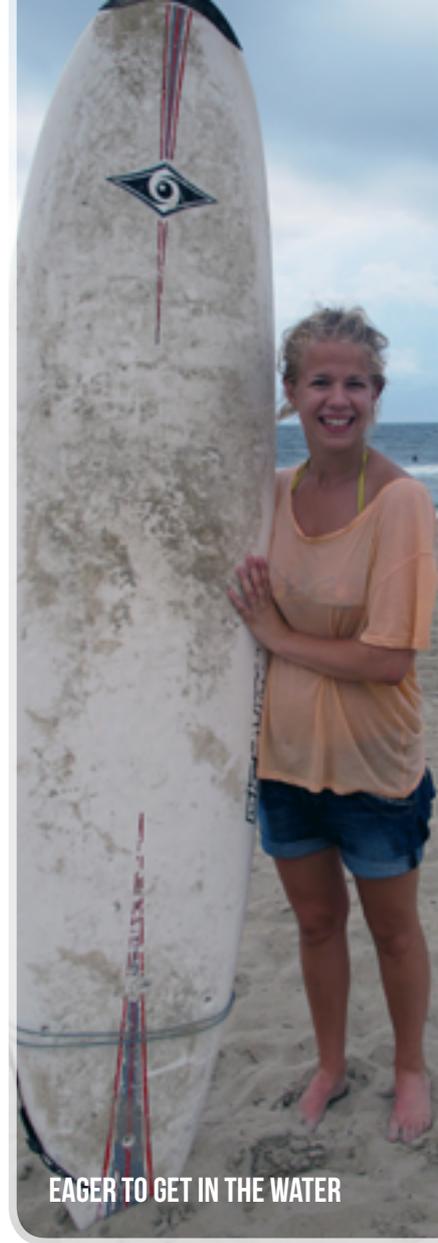
The general working environment at NASA is amazing and it is a very exciting experience, working as a part of one of the largest combinations of scientists, engineers and technologists in the country. Since the Goddard Center has over 30 buildings dedicated to different science projects there is a lot to see and even though we usually hang out in our own office we try to go around viewing other parts of the facilities as well. Once we got a tour of one of the buildings where most of the spacecrafts are built and we got to watch some of the environments that are created to simulate space conditions for testing. It felt a bit surreal to get to walk around amongst these huge famous projects, for example seeing the rooms where they built the Hubble Telescope and getting to see the construction of its replacement the James Webb Space Telescope. Not too bad for a regular day at work!

We would like to thank CETAC and all the wonderful people at NVI for giving us this great opportunity and teaching us so much.

THANK YOU for giving us the best summer ever! ■



THE INTIMIDATOR



EAGER TO GET IN THE WATER



AWESOME LADY SHOWING OFF HER MOVES IN CENTRAL PARK



THE WASHINGTON MONUMENT

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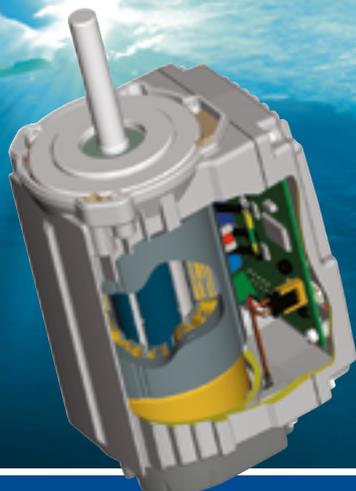
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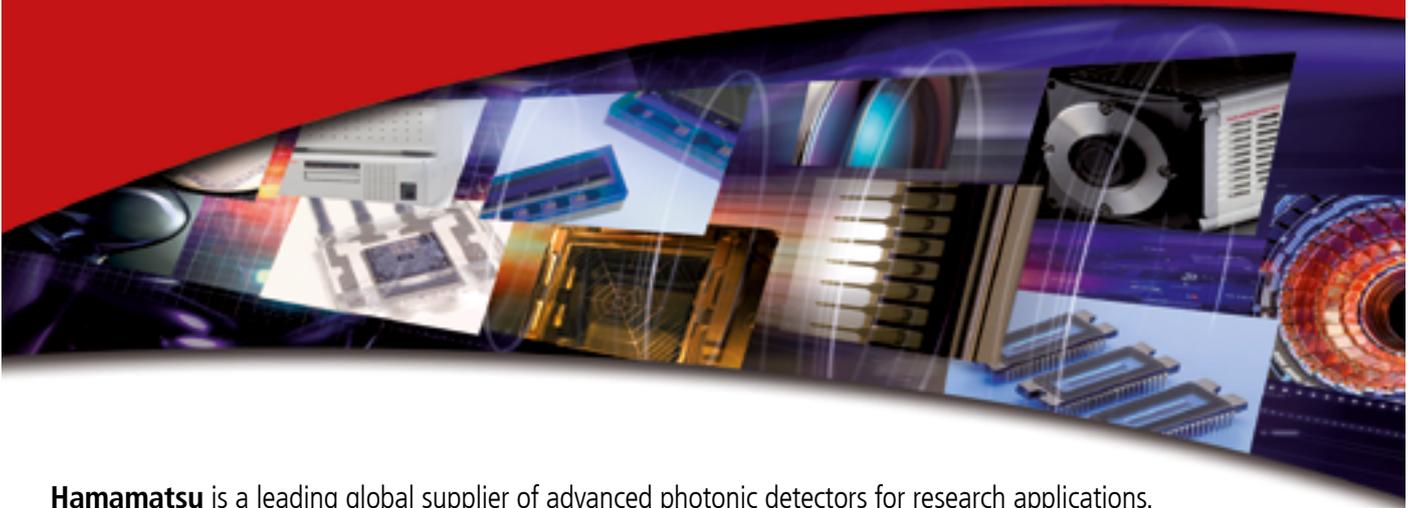


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STUNNING VIEWS ALONG HIGHWAY 1 ON A SANTA BARBARA ROADTRIP WITH OUR FRIENDS JOHAN AND MATTIAS AT NICIRA.

CODING IN CALIFORNIA

IN FEBRUARY 2011 BOTH OF US WERE SELECTED AS MEMBERS OF THE CETAC BOARD OF 2012. THIS WAS AMAZING; WE WERE GOING TO PURSUE AN INTERNSHIP IN THE UNITED STATES! AND WHAT A TRIP IT HAS BEEN SO FAR. AFTER A YEAR OF HARD WORK WITH CETAC, IT WAS A GREAT FEELING ARRIVING IN NEW YORK. TWO WEEKS LATER WE FINALLY SET OUR FEET IN SILICON VALLEY AND THE BIG ADVENTURE LAY BEFORE US

We are working in the healthcare IT business, at Velos Inc, based in central Fremont since 1996. The company's main product is Velos eResearch, a comprehensive online solution for managing clinical trials. Additionally, Velos is developing several new solutions for the health care industry. One interesting example is an IT solution for reducing the time in bone-marrow and cord blood donations. The company has expanded rapidly during the past two years. There is now a whole new department, called Force 5, where we together with 25 other employees focus on new products. Almost everyone in our team came to Velos straight after graduation and was hired within the two last years. This has resulted in a very young and lively team, where everyone can exchange ideas and learn from one another.

The two of us were at an early stage assigned a project that includes extending an existing mobile app with several features from Velos

eResearch. We are currently working on allowing the user, typically nurses or physicians, to fill out patient forms directly on their mobile device. This will be a huge time saver, and it will most likely reduce the number of errors that are associated with form editing. None of us were familiar with the language used before we started, so we had to learn it from scratch. We have also spent a lot of time trying to understand how all the parts of Velos eResearch connect, and how we are going to exchange data with the servers using something called SOAP web services. In addition, we are developing some new web services that we need for the project. This includes Java programming and a lot of database communication.

It was a big surprise to come to Silicon Valley and see that a majority of our co-workers do not actually code. Velos outsources most of the coding to India and the main responsibility for Force 5 is to manage and design the

VELOS INC
EMPLOYEES
50 IN FREMONT
200 WORLDWIDE
LOCATION **FREMONT, CA**
WEB **VELOS.COM**

products on a higher level, still working close with the developers.

This means that we are now the on site experts on developing mobile apps, and as the weeks pass our expert knowledge rapidly increases. We are planning to release a beta of the app in late September. Thereafter, we are likely to start working on another project that includes more Java programming and hopefully even some pretty advanced mathematics.

Most of our fellow CETAC students had to spend some time during their first weeks in the US to find a place to stay. Velos spared us that stress by providing corporate housing, just a mile from where we work. There are two separate apartments, one for guys and one for girls, which we share with other Velos employees. Together, we have flatmates with roots in India, Zimbabwe, Turkey, China and of course the US. It is really nice to always have some company, and to exchange ideas and gain insight on other cultures' traditions. The apartments (with facilities) are great; we have a swimming pool, a jacuzzi and a gym just outside the door!

“ **THERE ARE EVEN DRIVE THRU PHARMACIES!** ”

The San Francisco (SF) Bay Area is really different from a European city. It consists of numerous cities that together form one huge urban area. It stretches all the way from San Francisco in the north to San Jose (a city even bigger than SF) in the south. In between lie places like Berkeley, Oakland, Mountain View, Palo Alto – and Fremont.

During our first week we asked at work, referring to Fremont, “What do you do for fun around here?” and got the answer: “We go away from here”. Fremont is a commuter town with about 200 000 inhabitants, but no central parts. The fact that it is virtually impossible to go anywhere in reasonable time without a car soon made us adapt and buy a 94' Toyota Corolla. This ride proved to be our best friend, and thinking about it now, we have no idea of how we could have managed without it. America really is a country designed for cars. There are even drive thru pharmacies!

Silicon Valley, the IT Mekka of the world, is an awesome place to be and there is always plenty of stuff going on. Computer Science has much higher status than back home. A talented programmer can after a few years of experience easily earn \$160k a year; where would a programmer in Sweden get that kind of money? The general high salaries of the area also reflect the high living expenses. Everyday costs are similar to Sweden, but housing is a bit more expensive. It is not uncommon to pay \$1500/month for a one bedroom apartment.

MICHEL EDKRANTZ

AGE 22

BACHELOR

ENGINEERING PHYSICS

BEST US MEMORY

RIDING ALL AMAZING ROLLER COASTERS

EMILIA INGEMARSDOTTER

AGE 22

BACHELOR

ENGINEERING PHYSICS

BEST US MEMORY

HELPING OUT BUILDING A THREE STORY APARTMENT BUILDING AS A VOLONTEER FOR HABITAT FOR HUMANITY TOGETHER WITH COWORKERS FROM VELOS

CELEBRATING VELOS ERESEARCH 9.0 LAUNCH PARTY WITH OUR TEAMMATE SNEHA



We have many times met up with CETAC and USASIP members, also pursuing internships in the area. In between all of us we also have many visitors coming - meaning even more people to hang out with. There is so much to do in the area that there is never a problem to come up with ideas about how to spend the weekends, especially if you are interested in outdoors activities. Hiking, biking, climbing, kayaking, surfing - it is all easily accessible from where we are.

As for the weekend of Swedish Midsummer, we went to Clear Lake, a 3 hour drive north of San Francisco, for a weekend with the Young Scandinavian Club. There are a lot of people with Scandinavian heritage in the area, and about a 100 of them joined for this celebration. This was a great weekend which included waterskiing, Swedish *smörgåstårta*, Midsummer pole dancing, swimming, sunbathing, partying and outdoor camping.

Another great weekend activity is of course exploring SF, which is a fascinating city with a great mixture of people and personalities. On the 4th of July we went to Dolores Park in the Mission district to enjoy a sunny day.

Later at night, Emilia met up with some new American friends and explored Alcatraz while Michel continued with the Swedish interns and explored the gay quarters of Castro. The Pride culture is really established there, and one should not be surprised to see naked men walking around. The day we got our car we drove through SF and it was not until then that we realized how steep certain hills are. Are there any courses for parallel parking in San Francisco?

Michel is taking the opportunity here to follow his passion for amusement parks and roller coasters. After experiencing the theme park King's Dominion, outside Washington, DC he continued by going down to the Santa Cruz Beach, which has a small theme park with a wooden coaster from 1924. There, Michel and his friend got so excited that they decided to visit Six Flags Discovery Kingdom the very next day. The next park on the checklist was Six Flags Magic Mountain, close to LA, and plans were soon being made for the upcoming trip there.

A couple of weekends later we drove down to Santa Barbara to visit Jonas, a fellow CETAC student. The drive there along Highway 1 was stunning and Santa Barbara was a fantastic little city with plenty of beaches for us to enjoy. The weekend included surfing, kayaking, seal and pelican spotting and of course a trip to Six Flags Magic Mountain and their 17 roller coasters!

For the upcoming weeks we are planning trips to Yosemite and Lake Tahoe, which both offers great hiking and stunning sceneries. Other travel plans include going to Ohio to see the Niagara falls and to visit Cedar Point (which also holds some 15 awesome roller coasters). To summarize, we can describe only this summer as unbelievably amazing. To work in Silicon Valley and experiencing the US from the inside is just awesome. We would like to thank all our fellow CETAC:ers for a great year; our sponsors for supporting us; and our team at Velos for hosting us. ■



AMERICAN WORLD OF ROLLER COASTERS

AT SIX FLAGS DISCOVERY KINGDOM OUTSIDE SAN FRANCISCO. IN THE BACKGROUND THE COASTER MEDUSA IS SEEN, WHICH INCLUDES 7 UPSIDE-DOWN MOMENTS. MICHEL ALSO WENT TO THE PARK KING'S DOMINION, WHEN VISITING WASHINGTON DC AFTER NYC.



STALLION BURGER IN CASTRO ON 4TH OF JULY. MICHEL HAS SET OUT AN AMERICAN BURGER CHALLENGE DURING THE TIME IN THE US, AND HAS SO FAR EATEN SOME 50 BURGERS



WHEREVER WE GO, THERE SEEM TO BE TRAMS



EMILIA AND THE SUNFLOWERS IN FREMONT



EMILIA AND JONAS FLYGARE AT ALAN JACKSON CONCERT



WOW WOW WASHINGTON

MY JOURNEY BEGAN THE 11TH OF JUNE AND MY FIRST STOP WAS NEW YORK. I HAD JUST BEEN IN MY HOMETOWN TO SEE MY SISTER GRADUATE FROM HIGH SCHOOL, WHICH MADE MY ARRIVAL A BIT LATE COMPARED TO MOST OF THE OTHER MEMBERS OF CETAC. THE ONLY ONES STILL LEFT IN "THE BIG APPLE" WERE RICKARD AND EMILIA, WHO I MET FOR DINNER THE EVENING I ARRIVED. I SPENT A FEW DAYS SIGHTSEEING IN NEW YORK, BEFORE FLYING TO BELLINGHAM ON THE 14TH WHERE I WOULD SPEND THE NEXT SIX MONTHS.

AUTHOR & PHOTOS MÅNS LARSSON

Bellingham is situated in the northwest corner of the United States and has a population of about 80 000 people. The city is home to several colleges and universities and is hence inhabited by a lot of students. It also has a lot of good restaurants and bars and there is usually a lot of things happening. The climate is kind of mild since the city is situated next to the ocean. In the summer you usually will not get temperatures higher than 25 °C. The people living here insist that it rains a lot, but since I arrived it has been nothing but sunny days. I guess I have been really lucky so far and that living in Gothenburg has made me redefine the phrase "it rains a lot".

Jessica, who works at Rothenbuhler and who had offered me a place to stay during my internship, met me at the airport, and drove

me to her and her husband Ian's house where they had a spare room for me to stay in. My internship at Rothenbuhler did not start until Monday so I had some time to get settled. Jessica was also nice enough to drive me around and help me take care of some paperwork.

Rothenbuhler Engineering is a family-owned company that specializes in electronic products designed to operate in rugged mining, logging and other demanding environments. The company was founded in 1946 by Howard Ernest Rothenbuhler. Rothenbuhler started out by building a radio controller for the logging industry called "The Talkie Tooter". Today the company is run by Neal Rothenbuhler and has about 30 employees with the headquarters in Sedro Woolley, Washington.

Monday the 18th was the first day of my internship at Rothenbuhler. Jessica showed me around in the company buildings and introduced me to everyone before I went to the engineering building to meet Rich, the engineering manager. Rich gave me a quick introduction to some of the products that they work with and then put me to work. I was assigned to a project developing a brand new product. The previous intern had been working on the same thing, so I got to pick up where he left off. The first thing I got to do was implement the use of authentication keys to the device. I did everything from adjusting the hardware of the device and soldering new parts to the motherboard, to writing the routines for the communication between the microprocessor and the key.

The new product will also have GPS, a LCD display, external flash memory, accelerometer as well as being able to communicate with a computer over WiFi. Working with this project has involved a wide variety of tasks and challenges and I feel like I have learned a lot of new things.

The best thing about living in the state of Washington is the nature. There is a reason that they call it "The Evergreen State". You are never too far from beautiful mountains, green forests or calm lakes. I have tried to make the most of that during this summer. I have done a lot of trail running, hiking, camping, mountain biking and even tried out some ocean kayaking. Everywhere you go you are surrounded by beautiful nature and you never run out of things to do.

I did also have the pleasure to spend the Fourth of July here. Fourth of July, or Independence Day, is a holiday commemorating the adoption of the Declaration of Independence. It is pretty much the equivalence of the Swedish "National Day". On this day Rickard, another CETAC member who works down in Seattle, came up to visit me. After Rickard arrived, a friend of Jessica's named Chris took us out mountain biking up Galbraith Mountain. The feeling of going down narrow trails over rocks, roots and jumps with the adrenaline

pumping was amazing. It did not take long until I bought my own bike. As of now I am trying to go out riding as much as possible. Later on that evening we all hiked up Galbraith Mountain to watch the Fourth of July fireworks with a breathtaking view of Bellingham. The perfect way to end a great day!

At the time of writing it is the middle of August. I have been here for almost two months, and so far it has been an amazing experience. I have learned, tried and seen a lot of new things, both at work and on my free time. I am hoping it will continue for the rest of my stay. I would strongly recommend people to join CETAC and take advantage of this once in a lifetime opportunity. For my final words I would like to thank everyone that has made this possible. The CETAC Board and the other CETAC members, you all did a great job and I am glad so many people made it here. The people at Rothenbuhler who gave me this opportunity, as well as everyone else I have met here that has made my stay awesome. Thank you all! ■

MÅNS LARSSON

AGE 22

BACHELOR
ENGINEERING PHYSICS

BEST US MEMORY
WATCHING THE 4TH OF JULY FIREWORKS
FROM THE TOP OF GALBRAITH MOUNTAIN

ROTHENBUHLER ENGINEERING

EMPLOYEES 30

LOCATION SEDRO WOOLLEY, WA

WEB RUTHENBUHLERENG.COM



VISITING THE MOCK GERMAN TOWN LEAVENWORTH
TALKING TO SOME REALLY AMERICAN MEN IN LEDERHOSEN



DRINKING SOME GENUINE AMERICAN BEER ON THE
FOURTH OF JULY ON THE TOP OF GALBRAITH MOUNTAIN



AT WORK



ME AND RICKARD AFTER FINISHING THE WARRIOR DASH!

A SUMMER IN SEATTLE

A COLD MORNING IN THE BEGINNING OF JUNE 2012 A GROUP OF INNOCENT YOUNG PEOPLE WERE ABOUT TO START AN EPIC QUEST TO HONOR THEIR ANCESTORS BY IMMIGRATING TO THE BIG COUNTRY IN THE WEST. ONE OF THOSE YOUNG PEOPLE HAPPENED TO BE ME AND THIS IS MY STORY OF HOW THE ADVENTURE WENT

AUTHOR & PHOTO MANS LARSSON

After a bewildering journey that included crossing the Atlantic Ocean, a pit stop in New York City and a frightening flight over the North American continent, I finally arrived at Seattle-Tacoma International airport. As soon as I got off the plane I found to my surprise that I was starring in a movie called Home/Baggage-less in Seattle. After a “short” wait at the airport my baggage finally managed to catch up with me and I headed into Seattle with my mind set on finding a place to live for the duration of my stay. It turned out to be a little bit harder to find a place than I originally thought and by bad luck and general inexperience I ended up with an outrageously expensive apartment that had not been vacuumed for 10 months. After a bit of reflection regarding my business skills and a conclusion that I maybe should handle things a little bit different in the future, I soon noticed that being politely greeted with “Good morning, Sir” from a friendly concierge every morning is not that bad.

Before I continue with my story, I would like to say a few words about the largest city in the state of Washington, Seattle. I must say that Seattle is one of the most beautiful cities I have ever been to. Downtown is covered with high skyscrapers and the entire city is surrounded by water and spectacular mountains. One mountain that stands out is the great Mount Rainier that with a height of 14,411 ft majestically raises over the city. The weather on the other hand is not that great; it is quite similar to the weather we have in Gothenburg. And just as the people of Gothenburg take pride in the city’s bad weather so do the people of Seattle. Every sunny day there is at least one person who just has to let you know that this is out of the ordinary and that all other days are usually crappy.

Not long after I had gotten my apartment I began my job as an intern at TIBCO Soft-

ware Inc. Other than the fact that TIBCO was a big software company I had no idea what to expect, but my first impression was not bad at all. The office was located by a lake called Lake Union next to a yacht club with an amazing view over the entire lake. A normal sight from the office was a seaplane coming in for a landing in the lake trying not to hit all the boats and paddle boarders. The rest of the office was not too bad looking either with modern conference rooms and a ping-pong table. It even had its own free snack bar containing all you can eat chips, power bars, disgusting things called pop tarts and all other sorts of unhealthy food you can think of. The main part of the office was made up of classic cubicles and next to my cubicle sat two other interns with whom I was going to work with over the summer. One of them later become one of my best friends in Seattle.



TIBCO SOFTWARE INC

EMPLOYEES

35 IN SEATTLE

3000 WORLDWIDE

LOCATION SEATTLE, WA

WEB TIBCO.COM

RICKARD SIREFELDT

AGE 23

BACHELOR ENGINEERING PHYSICS

BEST US MEMORY

WATCH MY DEAR FRIEND MÅNS BRAVELY CROSS A STEEP, ICY MOUNTAIN PATH SAYING SOMETHING LIKE "I WONDER WHAT MY PARENTS WOULD THINK ABOUT THIS"

I worked with the QC (Quality Control) team whose main function in the company was to seek out places in the software where the developers have been sloppy and then nicely tell them to redo that piece of software but this time do it right or as we say in Sweden "gör om, gör rätt". There are basically two ways that you can do this. The first one is by manually testing the software by just clicking around and see if you can break it. The other way is to write automated tests that perform the work for you. Which approach you use depend on what you are going to test. Manual testing is for the most part kinda of boring and unfortunately that is mainly what I have been doing over the summer. So the actual work has not been such a big experience as I thought it would but there have been other highlights. During my time in the office and different meetings I have learned a lot about corporate America and how a really big company operate which is really fascinating in so many ways. Overall my summer here in the Seattle office has been terrific, not least due to my many awesome coworkers.

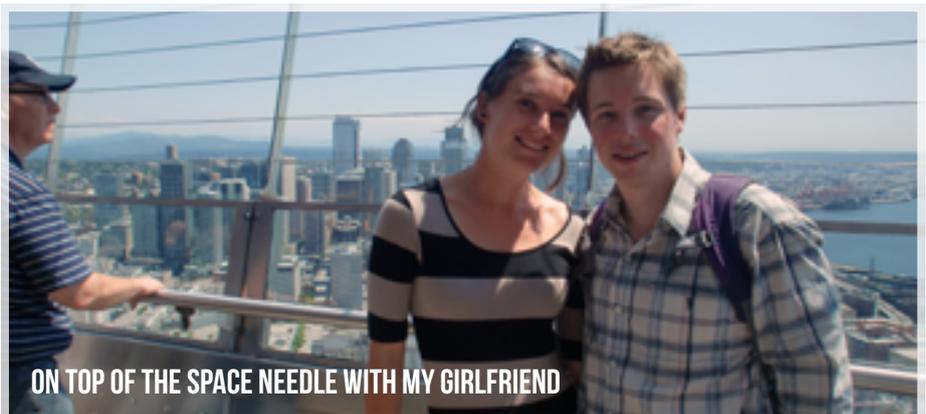
Besides work I had plenty of spare time to do lots of other cool and fun stuff, many of which I did with my fellow CETAC member Måns who lived just a couple of miles north from where I lived in a tiny city called Bellingham. We did everything from hiking steep mountain trails to watch Roller derby games. We even managed to run a Warrior Dash, if you want to know how we looked after the race you will have to switch page to Måns article since he stole all the good photos.

Well that mainly sums up my summer adventure in the west and I hope that my original goal to make my ancestors proud has been accomplished. The whole trip has truly been a great experience and tomorrow it will get even better since I will start a new project at work that I very much look forward to. Finally I would like to give a big thanks to all the people who have helped me get to the big country in the west, thank you. ■

MÅNS AND THE ICY MOUNTAIN PATH



ON TOP OF THE SPACE NEEDLE WITH MY GIRLFRIEND



HIKING IN THE MOUNTAINS



AT WORK WITH MY TWO CO-INTERNS





MAKING UP FOR LOST TIME IN SOUTHERNMOST SILICON VALLEY

IN THE BEGINNING OF JUNE, ALL THE MEMBERS OF CETAC 2012 WENT TO THE UNITED STATES TO FINALLY EMPLOY THE INTERNSHIPS WE ALL HAD STRIVED TO SECURE. ALL THE MEMBERS BUT ONE! I FOUND MYSELF TAKING MY FIRST STEPS ON AMERICAN SOIL THE 2ND OF AUGUST – TWO MONTHS AFTER EVERYONE ELSE

I happily hung up the phone in early April – it was confirmed, Infineon Technologies, a Silicon Valley-based semiconductor company, had decided to offer me an internship. As the last member to secure an internship, I knew that speed was of the essence to get my VISA documentation ready in time. Unfortunately, applying for an American VISA can be a truly frustrating process. Numerous parties are involved in the procedure and if one or two of them bides their time, one's VISA will most definitely be delayed. Luck was not on my side. Week after week went by and I could not do much to hurry things along. It was a conundrum of sorts; I spent a great deal of my summer tracking down the person who at the moment was liable

as the bottleneck. By the time I finally received my long awaited VISA, my fellow CETAC members had been abroad for almost two months.

Even though I had been delayed, my supervisor at Infineon was nice enough to assure me that I was in no hurry to start my training over in California. Therefore, I took the opportunity to visit the members situated at the east coast before I made my way over to the other side of the country. By doing so I certainly had my work cut out for me. In just under two weeks I managed to visit Jonas L. in St. Augustine, Julia and Ronny in College Park and finally, Jesper and Linnéa in New York City. Meeting up with all of them was a great way to ease into the American way of life. How

else would a vegetarian without a driver's license survive in the United States if not with a little help from his friends?

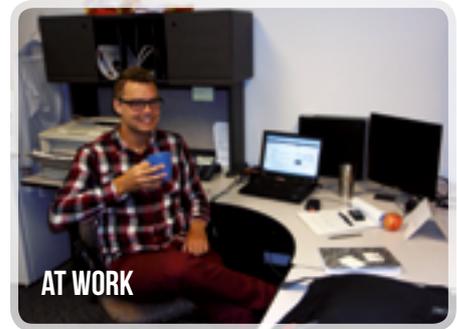
I had a great couple of weeks at the east coast, taking my first breath of American air whilst the rained poured down in the so called sunshine state of Florida. Getting my fill of adrenaline at Universal's theme park Island Of Adventure. Wandering about at the National Mall in Washington D.C. - perpetuating the iconic landmarks in a parade of photographs. Catching a Sunday musical at Broadway, glazing out over a sunset lit Manhattan skyline from a rooftop bar or just catching up with my two months lost friends at a cafe – it does not matter, they were all memorable experiences.



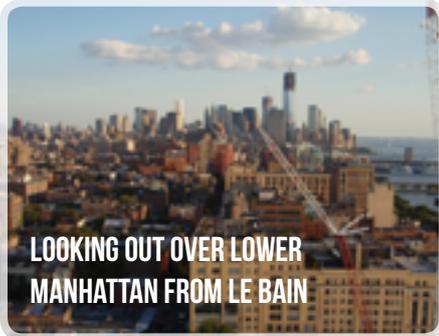
ME AND FRANKLIN D. ROOSEVELT



RELAXING IN FRONT OF THE CAPITOL



AT WORK



LOOKING OUT OVER LOWER MANHATTAN FROM LE BAIN



CENTRAL PARK, NEW YORK CITY

INFINEON TECHNOLOGIES
 EMPLOYEES 26 000 WORLDWIDE
 LOCATION MORGAN HILL, CA
 WEB INFINEON.COM

At last, after yet another domestic flight I finally touched down in San Jose, California. As I crashed onto my motel bed the sense of vacation I let myself be lured into over at the east coast quickly faded away. Here I was, in the self-proclaimed capital of Silicon Valley, with just a few days before my internship were scheduled to start and I had no long term accommodation and no means of transportation. Since I do not have a driver's license (lazy, I know) I had to place myself in close proximity to Infineon. Therefore I switched motels and made my way down to Morgan Hill, the city south of San Jose in which Infineon is situated.

Even though Morgan Hill is a fairly small town (~40 000 inhabitants) it sure provides everything you might need and when you tire of the small town life the entire Bay Area and renowned surfer city Santa Cruz is just at your doorstep. Luckily for me I was quickly able to sort out a bike, enabling me to see the surrounding areas. Since then I have conducted many bike excursions, exploring a few of the many treks available close to town.

Leaving the worst Swedish summer in 12 years behind me, I was glad to realize that everything good I had heard about the

Californian climate was true. In Morgan Hill it seldom rains and when some drops eventually find their way to the ground, they do so during the winter months. After a week in the motel I am hereafter able to enjoy the pleasant climate appropriately. My newly found room came with a pool and a Jacuzzi – all your Silicon Valley needs covered.

Infineon Technologies is a relatively large company which operates within the field of semiconductors. The office in Morgan Hill more specifically emphasizes on LD-MOS transistors – a crucial component in for instance cellular base stations. Every division is united under one roof here in Morgan Hill making it an ideal place for an intern like me to make the most of my stay. Right in the center of the office, among the typical cubicles lays a fairly large clean room - all covered in glass, in which the production of the integrated circuits takes place. Everything is bundled together and that creates a very friendly and convivial atmosphere.

My role at Infineon is currently entwined in many projects. Usually they involve hands-on experiments on the production floor followed by statistical analysis of the gathered data to isolate correlations be-

JOAKIM ZAAR
 AGE 24
 BACHELOR ENGINEERING PHYSICS
 BEST US MEMORY
 FIXING UP JONAS L'S CAR TO A DRIVABLE STATE WITH NOTHING MORE THAN A ROLL OF TAPE AND A PIECE OF PLASTIC WRAPPING.

tween various parameters. Even though I have only been here for a couple of weeks, I am truly enjoying the tasks designed for me and I have honestly never felt this much like an engineer before. Finally my choice of education makes sense!

I owe a great many thanks to a great many people - without you I would not be writing this article. First and foremost I would like to thank Christopher Jakubiec and Henrik Sjoden for making this internship happen. Cheers to all the people in the IT department as well as those in the Product/Test Team for making my stay a comfortable one. Finally I salute the members of CETAC 2012 for making my job easy – we only part to meet again. ■

A CAPITAL KICK-OFF

EVERY YEAR, AS THE SUMMER IS COMING TO AN END AND A NEW SEMESTER GRADUALLY GET UNDER WAY AT CHALMERS UNIVERSITY OF TECHNOLOGY, A NEW EDITION OF CETAC CUSTOMARY BEGIN ITS BUSY YEAR WITH A THREE DAY SALES TRIP TO STOCKHOLM

Early one Septembers morning all the members of CETAC 2012 met up at the train station in Gothenburg. As the train left the station at 6:00 AM some members took the opportunity to catch up on their sleep while others discussed where they most preferably would spend their upcoming summer in the United States. As the train came to a halt in Stockholm we all stepped out on the platform with high expectations of what the near, as well as the far future held in store for us.

The Stockholm trip has become a true annual tradition for CETAC. It serves as the official start for the work at hand, but also provides a great opportunity for the committee's members to get acquainted with each other. A couple of weeks prior to our departure the members were divided into groups of three. Each group then worked on booking appointments with companies throughout Stockholm. The revenues raised by selling advertisements in the Trainee Report or lunch seminars at Chalmers support the committee's activities both in Sweden and abroad.

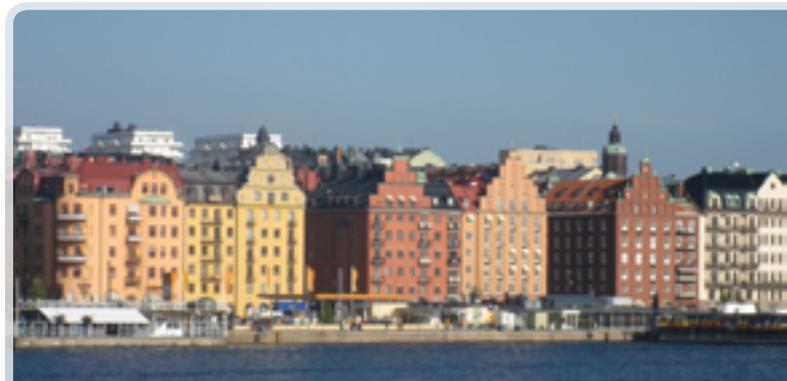
As the members who had pressing appointments to attend scattered across the city, the remaining members made their way to Zinkensdamm, our hostel of choice, where they started to contact companies by phone. It was a great sight seeing the members calling company

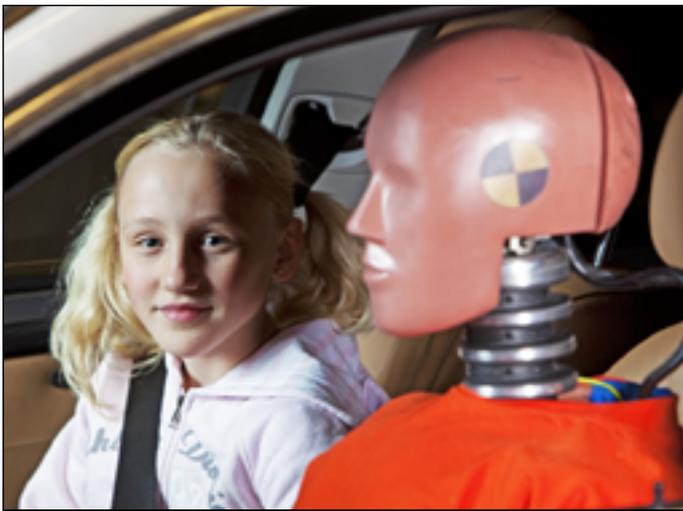
after company, boosting each other along the way. Before long, the first sales were confirmed and cheers echoed throughout the members, creating a real positive atmosphere that lingered long after the sales trip was concluded.

As the days were filled with hard work, the evenings allowed for well earned leisure. The spare time was however well spent as we had the pleasure to enjoy a nice dinner down town with the alumni organization of CETAC. Former members of CETAC spoke most devotedly of their time in North America, painting a picture in each of our heads of what to expect when our time comes. Later, the alums showed us what the Stockholm nightlife had to offer. It was a great night and I think we all went to bed quite inspired!

Our three days in Stockholm were over in a flash and before we knew it, we were on the train headed back to Gothenburg. Tired, but satisfied after spending an exciting time together. A grand kick-off; we had definitely come closer as a group and we also learned a lot in the process. Somehow our coming adventures in North America seemed more real now. We had gained the tools and group cohesion to achieve our goal and we had started working towards that goal - qualified internships in the Land of the Free. ■

AUTHOR JOAKIM ZAAR PHOTOS CETAC 2012





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CETAC Alumni

CHALMERS ENGINEERING TRAINEE APPOINTMENT COMMITTEE

CETAC Alumni all have a couple of things in common. Not only do we (or soon will) have a degree from one of the top technical universities in northern Europe. Along with our studies we also had the privilege to work hard for something we really wanted as a great complement to our degree. Even more importantly; we have all practiced our engineering skills during a couple of months or more. This in a foreign country with different language and culture.

I strongly believe that all things mentioned makes us extremely capable to solve present and future problems. I also believe that when great people come together, even greater things happen. CETAC Alumni exists to seize this opportunity of synergy. We have members in all stages of their career, who can all benefit from each other.

CETAC Alumni was founded in 2006 and has ever since worked to create a network of former CETAC members. We today have well above

100 members, with members from CETAC 1973 and forward, and is growing steadily every year. Our activities includes arranging dinners and get-togethers, helping CETAC attract new members and provide financial support for CETAC. Our main purpose is to be a social platform for former CETAC members to enable sharing of ideas, memories and work opportunities while having some fun!

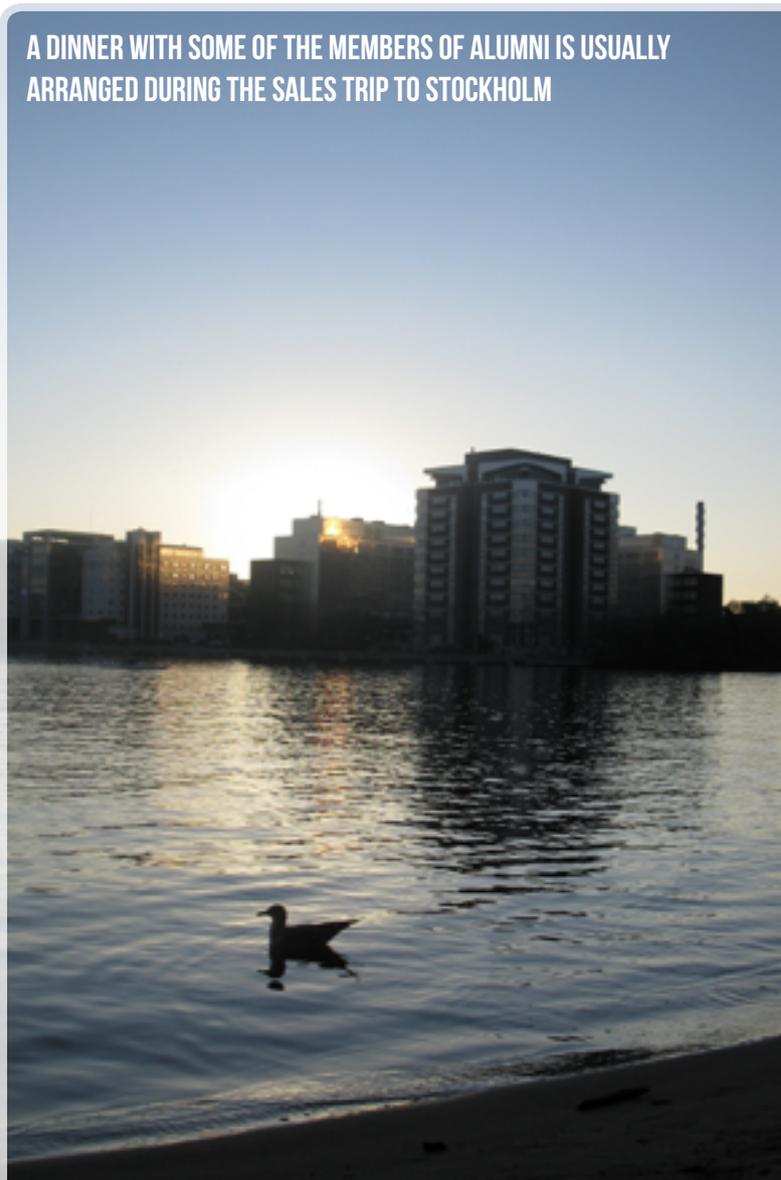
CETAC and CETAC Alumni are helping each other to grow and to improve. By joining CETAC you will not only give yourself the chance of an internship in the United States, you will also provide yourself with the opportunity of joining the Alumni network. By doing so you will have a unique chance of meeting old and new friends who shares your past, and can lead you to new and exciting experiences!

Tomas Gille,
Chairman of CETAC Alumni

THE CUSTOMARY SPEAK OF THE NEW CHAIRMAN
DURING THE CETAC ALUMNI DINNER 2011



A DINNER WITH SOME OF THE MEMBERS OF ALUMNI IS USUALLY
ARRANGED DURING THE SALES TRIP TO STOCKHOLM

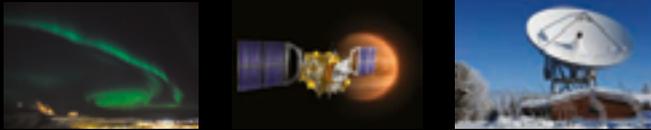


ADMISSION OF NEW MEMBERS FOR CETAC 2012





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The ASF is a publicly supported, non-profit organization housed in Scandinavia House, New York City, which serves as the Nordic Center in America. Our organization strives to promote international understanding and cross cultural exchange between the United States and the Nordic countries.

The Chalmers Engineering Trainee Appointment Committee (CETAC) and The American-Scandinavian Foundation began its fruitful relationship in 1980. Since then, the Foundation has provided visa sponsorship for Committee members studying electrical, electronic and computer engineering.

What is the Foundation's role you may ask? Well, the Foundation has been designated by the U.S. Government as an Exchange Visitor (J visa) program sponsor for on-the-job training. Any student who wants to work in the United States must have a visa and that is where we come in. The Foundation receives the student's application and the Form DS-7002 Training/Internship Placement Plan from the U.S. Firm. Once we make sure that the internship position is appropriate and meets program requirements, ASF issues the U.S. Government documents that make it possible for students to come into the United States and obtain this on-the-job experience and receive income. Once in the United States the students receive a meaningful internship and in turn provide the host firm with a highly motivated, skilled individual who is eager to learn and contribute to the particular company's growth. We at the ASF understand how much work and effort the members of the committee put into obtaining their assignments therefore we try to help in every way.

It is not only the professional growth you experience during your summer in the United States it is also your personal evolution. Year after year, students mention on their final reports how much they enjoyed themselves, how many friends they made and how many things and people they got to see and meet. It is fascinating to read about your personal and professional accomplishments during such a short time span. We anticipate this to be a natural consequence of this program and hope that the friendships you make last a lifetime.

It has been a great pleasure to work with this particular group because of the infinite energy and zeal they bring to the program. The positive feedback we continue to receive at the conclusion of a student's internship program is well worth the effort.

We at the American-Scandinavian Foundation wish you continued success in your future endeavors.

Tatiana Pashman
Director of Internship & Training Programs
The American-Scandinavian Foundation

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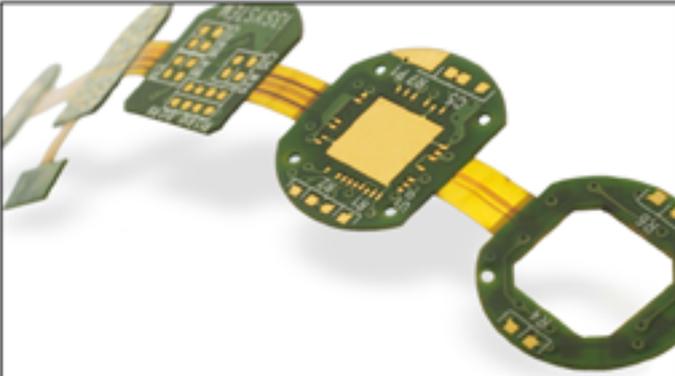
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CHALMERS



THE CHAIRMAN SPEAKS

MY NAME IS VIKTOR ANSUND, AND I AM THE CHAIRMAN OF CETAC 2012. I SAY THAT WITH GREAT HONOR, AND I AM VERY PROUD OF THE WORK WE HAVE DONE TOGETHER IN THIS ASSOCIATION.

AUTHOR VIKTOR ANSUND

The board and the members have worked together towards a common goal - a qualified internship in the United States of America. First, I thought that CETAC was too good to be true, but I applied, and here I am. About a year after we all first met each other, I am sitting in my office in sunny San Diego, thinking about the year that has passed.

It has been a wonderful year and a great experience to be a part of CETAC. CETAC is not a new association, but a venerable one. The alumni network that entails is such a great place to meet fun people and hear interesting stories. In fact there is an association for just that purpose, CETAC Alumni. Every member of CETAC gets to be a part of that association when they return from their internship.

CETAC 2012 has been great in many ways. We managed to send 18 interns to the US. That is the most people sent in over a decade. Since CETAC is all about internships in North America, I am very proud to be a part of this year's board. CETAC is also all about continuity, and therefore I will challenge next year's association to beat our number and send even more students west. I hope they will succeed.

CETAC 2012 also managed to get more sponsors, and a higher scholarship. We have reintroduced a post to the board of CETAC 2013, called sponsor manager. The sponsor manager will manage the members and the contact with the sponsors. We think this will be good for CETAC with the possibility to have even more members and make CETAC grow in the long term.

This year have also been a year of constant learning and development for the members of CETAC. We provided and participated in courses about how to write a better resume, and with the help of David Gagner, we learned how to become great at sales.

In conclusion I would like to thank everyone in CETAC 2012. Together we made this happen. I would also like to encourage everyone else to join CETAC and experience this amazing association.

It will be the time of your life.

Viktor Ansund,
Chairman CETAC 2012

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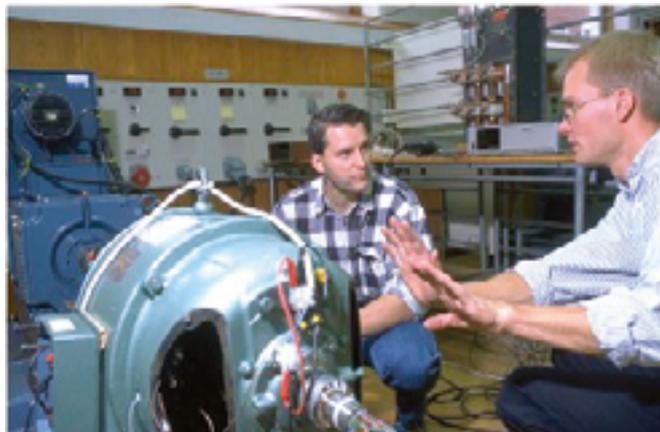
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