

Internship's Mid-Term Report

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This report describes and evaluates my experiences during the first half of my participation in CDS' Professional Development Program as an intern at Siemens Corporate Research in Princeton. To make it more useful to potential future applicants and more interesting to read, some sections may go beyond the level of detail desired by the inventors of such reports.

1 Before the Internship

Application

In the context of Unitech International, a joint programme by European universities and companies, I spent part of the academic year 2003/04 at Chalmers TH in Göteborg, Sweden, to attend courses in my major, Computer Science. The other main component of the programme, an internship at one of the sponsoring companies, could then be completed any time within the next three academic years. For that, Unitech runs an internship database, whose entries, however, are often outdated or instead of specifying any particular project just invite participants to submit a general application.

In spring of 2006, when my thesis' due date had been finalized to September 1st, I found an outdated offer ("January 2006 or earlier") by the Department of Knowledge Management at Siemens Corporate Research, Inc., in Plainsboro, New Jersey (whose postal address reads as "Princeton"). In mid-April, I sent an e-mail to the named contact person – my future supervisor –, asking whether there would be new positions available by the time I would be ready. The answer was positive and invited me to merely send my CV.

The decision process was slow, but after telephone interviews in mid-June and on August 10th, I got confirmation on August 11th for a six-months internship (as I had expressed readiness to do) from October 2nd to April 1st, asking me to wait for communication from SCR's Department of Human Resources.

Formalities

They, as well as CDS, the organization doing the visa paperwork, then contacted me by e-mail on August 31st. By mail, I had to return to CDS

- an application form,

- a short essay about my reasons for doing to internship,
- an order for health insurance (\$45 per month, alternatively I would have had to guarantee that I have a different insurance fulfilling certain conditions),
- a copy of my passport's relevant page,
- a current version of my CV,
- a transcript of my grades in my study's latter stage and
- an acknowledgement of since when I've been enrolled at uni.

I sent all that by regular mail on September 4th, but at the same time by e-mail to get confirmation that everything was in order. It was, and I was asked for a short phone conversation, which I initiated on the 6th. In this, I was told that I could schedule the necessary interview at a U.S. consulate for the 20th, as by then, I should have gotten the required forms from CDS, which they could only send once having received mine, as well as the fee for the health insurance.

For the interview at the consulate, I needed to pay fees of €85 for the visa and \$100 to the U.S. Department of Homeland Security, and had to fill out various forms.¹ I had already been warned about those forms, and indeed some questions appeared ridiculous. For example, I was asked whether I had ever been a prostitute or was planning to engage in terrorist activity. In the case of other questions, the given space required the attachment of a free-text page, like when asked to list all personal crossings of national borders in the past ten years. Having the Dutch border in sight of my balcony and the Belgian one a few miles away, especially knowing that those borders aren't noticeable, anyway, got me close to suggesting to the U.S. State Department to exclude EU-internal travelling from that question. And be it only in order to make the official estimation of the time needed to fill out the form – according to the "Paperwork Reduction Act" – closer to reality for cross-national commuters.

Whatever eyebrows were raised by those forms, the actual "interview" at the consulate in Frankfurt was very enjoyable, as – after 90 minutes of waiting to be called up – it took only three minutes, and followed

¹They had to be filled out in printed form, so I did that in Acrobat Reader. In the case of one form this was only possible with the English-language version, not the German.

a commendation that my papers were atypically complete and presented in the desired order.²

I had meanwhile booked a flight for the 26th, and was told at the consulate that they would treat my application with priority. Indeed, my passport with the visa arrived by mail on the 23rd, (I think – I was away from home, meeting friends on a good-bye tour).

Other Preparations

Due to the lucky circumstance of a fellow CS student from Aachen (and also a fellow Unitech student who was in Göteborg at the same time as me) ending his internship at SCR exactly when I would start, I could take over his room, mobile phone, bedding and socket adapter. The biggest advantage of this, of course, was not to have to look for a room, which also saved SCR the cost of two weeks of hotel accomodation, which they offer to newcomers. But also previously, he readily answered any questions that I had in advance, giving me confidence in a smooth start ‘across the pond’.

Of course, I did not take the room just for peace of mind, but also because it seemed an acceptable deal. \$700 per month for a single room (including utilities and high-speed Internet access, kitchen and bathroom shared among four) seemed much – especially compared to the \$200 that I had paid for about the same in Aachen –, but a location that allowed pedestrian access to downtown Princeton and especially with friendly and intelligent landlords seemed to not make it worthwhile looking for alternatives.

Another decision with financial relevance was whether to have a car or not. SCR offers its interns subsidised rental cars for only \$300 per month (they rather pay \$800), which appeared too good not to take advantage of, considering the almost proverbial reliance on cars in the U.S.³

It might have been possible to find a room along the route of the bus passing SCR and do little trips by bike, but the latter appeared hardly inviting for the winter months. Most of all, my time in the U.S. was not only intended for the sake of professional advancement, but also to have an interesting time between studies and a ‘real’ job, which would hardly have been served by relying on public transport for trips and other leisure activities, especially considering that along said bus route, downtown Princeton would no longer have been easily reachable on foot. In the end, car-pooling with my co-tenant, another SCR intern, resulted in a drop of the car’s fixed cost to only \$150.

Besides accomodation and transport, there was the question of what to bring to the U.S., especially computer-wise. I arrived at the conclusion that buying a notebook at home (or in the U.S.) was not worth

²Future interns should ignore the claim by the consulate that mobile phones could neither be carried into the consulate, nor left at the entrance: the latter was indeed offered as a service, thus only benefitting those that ignore the rule.

³These cars are not insured in New York City and may thus not be driven there, but that is an acceptable limitation given the good public transport systems in and into the city.

it, because it would be used quite stationarily, anyway. I thus bought a cheap desktop computer once in Princeton and plan to sell it by the end of the internship.

Travel

The flights from Düsseldorf via Heathrow to Newark went smoothly, with just a one-hour delay in Newark due to technical problems. Again, two forms to be filled out waited on the trans-atlantic plane, among them one asking whether one had touched livestock or walked on pastures. The German translation stupidly talked quite generally of touching “animals”, which includes oneself and thus obviously happens all the time. Still, even the original made me ask the customs officer in Newark what time frame the question applied to, as I had certainly walked on pastures many times. The answer was “30 days”, so I could tick “no”.

I was picked up at the airport by a fellow intern, whom I obviously had not been able to inform about the unexpected delay in time. Among other info, I got a crash-course (not to be taken literally!) about driving cars in the U.S.

2 Impressions

Settling in

At my new home, I was welcomed by my landlords, and partially moved into my room, which, as it was September, was still occupied by the aforementioned friend and fellow student. During the next few days, he showed me around as far as his busy final days allowed it, and drove me to the rental company to drop off his car and drive back with me in mine. Not knowing that I had been supposed to collect the car within 24 hours of my arrival, my reservation had apparently been cancelled, but to no effect, as I could still get one immediately.

Also as part of a deal with Siemens, it was no problem to get a debit card at a local bank before having a social-security number, which had to be personally applied for in the state capital, Trenton. Apart from some unsurprising paperwork at Siemens, an introductory meeting at CDS in New York was the only remaining formality that was required.⁴

Although I had already been to the U.S. for one month back in 2000, as a touristy visitor I did not live a resident’s life, which is why most of the following impressions are indeed such newly formed in 2006.

⁴Meanwhile, though, I would count getting a driver’s licence among the things to do: contrary to most intern’s experience, one of them met policemen and judges that seemed to interpret New Jersey’s laws differently, considering it illegal to use an international licence when staying longer than 60 days. I would claim this interpretation not to be warranted by law, but then again the licence only costs \$24. However, only learning about the case within 61 days of my visa expiration, I could not get one, anymore.

Banking system

The banking system took a little getting used to, as transfers are uncommon, and cheques are used. Once I was told this was to limit the risk of people misusing one's account information, but at least Siemens did transfer the salary instead of handing out cheques. Online banking basically amounts to checking transactions and balances (including scans of cheques); the actual transfer apparently requires additional enrolment, which I refrained from because my landlords preferred cheques, anyway.

Car and roads

While paying with cheques could be seen as an interesting oddity, driving on U.S. roads proved nice at times, but often enough a nuisance. Nice because of the apparent relaxedness of most drivers, the pragmatic legality of turning right at red traffic lights and by that of overtaking on the right (although it requires more passive attention). While the rules may be pragmatic, the infrastructure as such is comparably bad, even ignoring most roads' bumpiness:

- Traffic signs seem not to be made for people that don't know the area, anyway. Often, the only information given at a crossing is the number of the crossed road, but no pointer to neighbouring towns or the number of one's own road.
- Traffic lights rarely have sensors, thus unwaveringly showing red in the middle of the night with no other drivers around.
- Road lighting is usually dim, often surprisingly non-existent even in suburban areas. I wonder whether the people waving handkerchiefs when using a crosswalk over Princeton's main street deem their taxes well spent.

Admittedly, the signs are better than the alleged points-of-the-compass-only posting, the pedestrian traffic lights' countdown in Washington proved useful and the local astronomers may welcome the limited sky pollution.

What was interesting to see is that the driving public did not care about rules too much:

- On Interstates, a limit of 55 mph (e.g. in Pennsylvania) was often met with a travelling speed of 80.
- Instead of merely overtaking on the right, all lanes were being used as if there were no instruction to drive on the right.
- Traffic lights' very long yellow phase is mostly treated as green.

Then, of course, there are the peculiar laws of certain states. An official rules guide by New Jersey's Dept. of Transport says "When approaching or overtaking a frozen dessert truck, or ice cream truck, from either direction and it shows flashing red lights and/or a stop signal arm, yield the right of way to any person who is crossing the roadway to or from the vehicle." While the

notion to protect children crossing the road is good, having special laws depending on the temperature of food served appears ridiculous. It gets completely useless at the way-of-right regulations at roundabouts: "In most cases, the circle's historically established traffic pattern dictates which driver has the right of way." Said right of way is also a problem on normal crossings, as the absence of signs indicating it leaves it up to a guess whether the crossing road may have stop signs, considering how far away from the actual crossing they are positioned.

Food

The cheapest places to buy food were a Wal-Mart without any fresh fruit, vegetables, meat or fish, and a Chinese supermarket with all that, but smelling of especially spoilt forms of the latter. As I am quite undemanding regarding food, this combination was enough, but of course I once in a while wandered through the 'upmarket' stores with both impressive variety and, at least apparent, quality. Especially U.S. creations like strawberry cream cheese didn't fail to make my experimental mind smile, as did equally typical marketing constructs like oatmeal of the "sugar-free maple & brown sugar" kind which includes the note that the latter's amount were negligible.

Environmental issues

While most preconceptions of cars' and other appliances' wastefulness were affirmed, I learned that, at least in Princeton, paper, aluminium and plastics are indeed being collected for recycling. And the numerous plastics bags gotten at the supermarkets could at least be re-used in wastebins.

What turned out worse than imagined, however, was windows' insulation, my own limited experience being supported by other interns' reports. As a consequence of this, thin walls and the fact that there may only be one thermostat for the whole house, landlords seem eager to turn the heating down, making this a well-known problem among interns. While just recently, a German court confirmed tenants' right to have at least 20°C during daytime and 17°C at night, there seem to be no such rules here, so I suggest everyone to fix temperatures in their contracts, defining a lower rent in case they are not reached. In my own case, after weeks of sneezing, I eventually got permission to set the temperature up to around 18°C at my discretion, "but not above 20°C".

Workplace

Having been told about the prevalence of cubicles at SCR's interns' workplaces, and being fond of the 1999 comedic movie *Office Space*, which introduces outsiders to the allegedly dull life of employees in a cubicle office, I approached my internship with light-hearted curiosity. In line with this, I start outlining my experiences at SCR along 'forecasts' made by the movie:

- *Traffic jams on the way to work?*
Such I experienced rather when returning in the afternoon than in the morning, and due to my room's location only over a short distance, not to mention the entertaining presence of another passenger. As working hours are flexible, we usually arrived at 10 a.m. and left at 7 p.m., thus avoiding rush-hours altogether.
- *Annoying bosses?*
First of all, I only had two supervisors as opposed to the eight bosses of the movie's protagonist. There were no annoyances, as I was largely allowed to allocate my time as I deemed right. Also, they were not only superficially friendly, but instead gave me the feeling that the internship was about me in the sense that I should get something out of it. They were ready to help, and when facing some difficulties, I felt better coming out of their rooms than before going in.
- *Dysfunctional office technology?*
As opposed to the printer destroyed by vengeful workers in *Office Space*, those at SCR worked fine. The closest parallel that I can think of is the problematic communication with their IT department, and the time some simple requests took. I'll try to somehow file that as a helpful experience.
- *Annoying cubicle neighbours?*
In contrast to most interns, I had the luxury of a comparably large cubicle, and being only one of three employees in a room of ten such cubicles. My direct neighbour was from my department (over most time the only other intern in that, as it was rather small) and contributed substantially to my feeling at home at work. If anyone annoyed the other, it was probably us chatting, not our Russian colleague from across the room, whom we only saw during his perpetual fight with the air-conditioning controls.
- *Annoying corporate traditions?*
If there is any "Hawaiian-Shirt Day" forced upon the employees, I wouldn't know for lack of summerly experience. Those traditions I witnessed were rather nice, like departmental good-bye lunches for leaving interns and ice-cream breaks organized by said interns for their colleagues. Food left from business meetings was also not wasted, but advertised via e-mail, adding an unexpected second dish to some lunch breaks.
- *Compulsory 'catching up' on week-ends?*
Rather than getting told that some lay-offs needed to be compensated by work on Saturdays and Sundays, this option exists for all employees, and is used by interns to make up for free days, as there is no vacation for them. (Also, some use SCR's rooms on week-ends to play cards, work out in the gym room, or use the table-tennis room.) Single holidays are rare (eight a year), but are at least 'observed' on the next working day should they coincide with a week-end.

As mentioning that I got my daily electrostatic shock not (as in the movie) inside the office but at my car is probably already too detailed a detail, this concludes the analysis of potential parallels.

Cross-cultural contact

One important aspect missing in the above workplace description is the composition of the workforce. As could be expected, the company's German roots lead to a high prevalence of German language, not only among the about 250 employees, but also among the over 100 interns. French is also quite common, but, of course, communication over the interns' mailing list about travel plans, soccer meetings or 'leaving' sales takes place in English. Nevertheless, I once heard an intern from Eastern Europe answer the question whether he had improved his English with "No, but my German." Coincidentally, he did this at the interns' party, which takes place about once a month, and at which au-pair girls improve the gender quotient of this otherwise predominantly male gathering.

Halloween, Thanksgiving, Christmas and the eve of the Super Bowl I spent with my landlords (and other visitors), all of which I will happily remember not just for being first-hand experience of some very American traditions, but also as examples for my impression of being more than merely a tenant, which made me feel very comfortable throughout my stay.

Generally, outside SCR, life is obviously a little more American, but not wholly so. What became a favourite week-end activity of mine during the first three months, namely attending concerts, did little for communication with locals. As also day trips to New York and the Delaware River took place in the company of fellow foreign interns, my talkative landlady and one of my supervisors were easily the 'natives' that I talked to most.

However, in a place like Princeton it was quite clear from the beginning that a demographic composition as in rural Nebraska could not be expected. With a Swiss of Iranian roots as office neighbour, a Cameroonian as co-tenant, a supervisor from Turkey, a Venezuelan landlord and an Indian account manager at the bank, it was only fitting that my most permanent other acquaintance turned out to be a Chinese postgraduate whom I met during a local congregation's Christmas dinner. Perhaps this combination of nationalities could be called even more symbolic of the U.S. than...Nebraska.

3 Internship Content

My internship was described as one in "Business Activity Monitoring", a field then unknown to me. My de-facto activities can be summarized as getting acquainted with software tools to formalize and facilitate business processes.

For some time, I dealt with Microsoft SharePoint, a web-server extension that allows the easy creation of web portals from either out-of-the-box modules like

document repositories, discussion forums and wikis, or one's own developments. The analysis of a customer's existing repositories and the design of a suitable portal structure that should be easier to use and to be kept consistent than the old one was a project that I contributed to.

Another server software I learnt to use was Microsoft BizTalk, a "business integration" tool with which processes can be modelled like flow diagrams. Using adapter modules, communication between disparate existing systems (like e-mail, business software, databases) can be designed with BizTalk as the "kit" in-between, which additionally allows the automatic creation of individual or aggregate information on running processes ("Business Activity Monitoring"). Rather than doing development for a real-world case, a hypothetical setting served to gain experience and to be able to report on the capabilities and handling of BizTalk.

Apart from the technical knowledge gained, a certainly similarly valuable experience was to witness and be part of proceedings in a corporate environment, with their ups and downs (the latter usually involving some kind of lagging communication between organizational entities).

4 Language Acquisition

As my command of the English language had already proven more than sufficient while studying in Scotland for ten months and in Sweden for six, I had no worries in that regard. Rather, I hoped to get more familiar with idioms and have everyday vocabulary more readily available. All that, of course, without letting my accent become further americanized, as it may already have become because of TV shows!

As I would claim there to have been some success in achieving these aims, the only real problems occurred when listening to people who didn't speak 'proper' English themselves, as it happened during the first week at a bus stop, where it took me some minutes to be confident about my reconstruction of what a woman trying to be helpful had just said.

5 Living Expenses

As already mentioned, my rent was \$700 per month, the subsidised rental car \$300. I didn't keep track of the exact gasoline costs, but at prices a quarter of those in Europe, an urban mile may cost about \$0.12, one on highways \$0.07, at least with the less wasteful one of my cars. Driving to SCR and back thus costs about \$1 per day, but some longer trips approximately doubled the mileage to over 4000 km during the first three months. Sharing common trips' cost as well as the fee for the car itself with my co-tenant kept all car-related costs well below \$200 per month.

Given a tax-free salary of \$2100, this leaves \$1200 for food and the rest. Despite the high prices (even with

the currently weak dollar, milk at Wal-Mart is usually 50% more expensive than in Germany, though temporary price cuts may be drastic), this comfortably suffices. Interns that have not graduated from their university, however, get \$400 less.

Expenses can be saved via an international student's ID card (e.g. at concerts on university premises), by making use of Siemens discounts (for example with Dell computers or certain cinemas) or by using the Public Library, where membership is free for residents of Princeton and where DVDs are \$1 a day. Worth mentioning is also that, opposed to German "payback" cards, supermarkets' coupons (not at Wal-Mart) save more than just 1% of the price (depending on the product it can halve it), so it is worth getting them when shopping at the more expensive chains.

6 Conclusion

I am confident that my decision to come here was correct, not only with regard to the experiences gathered during the internship itself, but also in so far as the stay as a whole was and is enjoyable. Besides the mere fulfilment of Unitech's requirements, the idea of doing this internship after graduation appeared attractive in that it offered an exciting time abroad without 'wasting' it career-wise. It left the last weeks of completing my diploma thesis with thoughts of the nearing adventure rather than serious decisions on where to apply for a more permanent employment.

However friendly the people (looking at a map suffices to get offered help), funny the food, interesting the museums and impressive the landscape, I cannot deny a basic suspiciousness about the United States' legal system that makes me reluctant to the prospect of living here permanently. The less relevant reason is a subtly perceived lack of regulation: the Chinese supermarket casts doubt on food processing supervision, badly secured roadwork sites and holes on walkways have a similar effect regarding road authorities, customers' and tenants' rights appear weaker etc.

More important is the incalculability of law. I could accept laws being slightly different across states, like on speed limits or on what constitutes a marriage. Judging from news read and heard, though, it appears that here, many are beyond common sense, codified in the nation's middle ages and ruled upon by emotional juries. As easy-going this country may appear, ending up in its prisons certainly isn't. But even dismissing this as a dramatization based on spectacular, but rare, cases, the example of the different treatment of interns with international drivers licences will certainly make me more consciously appreciate the legal certainty, regulatory frameworks, and trust in police and judiciary once having returned to the EU.