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DAAD RISE Report

My research was into a topic somewhere at the intersection of computer science, applied mathematics, and robotics into what is called the ‘informative path planning’ problem. The problem is essentially to find the most informative path that an agent can take in some configuration space subject to a set of constraints. Without getting too into detail about answering the hard questions like what “information” is, or what algorithms are best to solve the problem, I’ll just say that its not as easy as planning a walk in the park.

I really enjoyed my research. The nature of my project was pretty independent, however this was not the case for many of the other interns I knew. I felt like I learned a lot about things ranging from robot motion planning to Gaussian processes. I think I may end up being listed as a co-author to one of my supervisors papers where he uses my work to benchmark different algorithms used in the “informative path planning” problem.

I only really got an accurate impression of the research atmosphere in my lab, though from talking to other German students, I think many of my observations were not unique to this lab. I found the research environment to be extremely positive, full of kind people willing to spontaneously collaborate and help each other out with technical issues regardless of any personal benefit. There was in general a big work-friend culture around. There were several barbecues at my lab just to hang out, drink beer, and eat sausage. People would hang out after work, before work, during work...

While my research was certainly at times a bit of a grind, I would not say that I was pushed to work too hard. There were no real deadlines or requirements set out, so I really was able to spend my time exploring what I found interesting both when doing my research and in all of my free time. One of these things that interested me was traveling. I had never been to mainland Europe. I took full advantage of my central location in Hamburg, Germany. I traveled to London, Brussels, Cologne, Prague, Heidelberg, Bad Schandau national park, Berlin, Iceland, and some of the smaller cities in Germany. Not a bad list looking back on it.

My one tip to prospective DAAD students is to not let the language barrier discourage you from the RISE program, or any another program in Germany. I came to Germany not knowing a single of word of German. (nein, thats not true, but maybe at most five to ten words) At the university I stayed at in Hamburg, Germany called the Technical University of Hamburg, a large portion of the programs were in fact taught in English. The majority of students were fluent in English, and there wasn’t a single student I talked to that couldn’t at least speak *some* English. In the cities that I traveled to, almost anyone you will talk to from waiters and cashiers to other young people hanging out in bars or clubs will speak English, or at least enough to communicate.

In smaller towns I found this to be less of the case, but again I’m sure some combination of noises and hand motions will do the trick. I did have one fun interaction that went like this with some Deutsch Bahn train employees in the train station of the remote national park Bad Schandau which is located in southeast Germany. I think the electronic display might have said “the train was falling out,” in German, although even now I couldn’t be sure, my German still is nicht gut.

Away from Internet and my beautiful Google Translate, I dared to approach some employees of the Deutsch Bahn - the massive train company in Germany. I nervously asked one of the few sentences I can say in German “Ich sprechen sie Englisch?” (At the time I thought I was asking “do you speak English?”) However I later found out this in fact means “I speak English?”) My pronunciation was so bad, they looked at me as if I was speaking another language. So I did. Start speaking another

language that is. I tried in English and French “parlez vous Anglais?” and “Do you speak English” (I certainly am not good enough to have a conversation in French either). They confirmed my worry and shook their heads “nein.” I was supposed to be taking a train to Berlin from that train station, so I just started saying “Berlin?” and some things like “Ich go Berlin.” After finally realizing it would be best if I just show them my printed train ticket, they were able to point me (literally point me, again we did not really have a great way of communicating) in the right direction.

But again, I just want to drive home that you shouldn't let the language barrier hold you back from studying in Germany or doing the RISE program. It was only in this remote national park, really quite far from any major German city that I found myself in this situation, and even there everything ended up working out okay.

Of course Germany is a big country with many different cities and many different universities. Having said that, here are some generalizations that might give you an idea of what to expect in Germany:

- Trains
- Friendly People
- Beer
- Punctuality
- Currywurst and Schnitzel

Now to be honest the overall German culture was not *as* different as I had thought. There are all the same shops and malls and banks and grocery stores, often even of the same brands. There are certainly some differences you'll find, like more biking and cashiers at grocery lines that go at 100 items per minute. I don't really know how exactly to put culture into words though, so I'll just tell a joke that one of the Germans I met working in the lab said the other day. “Two guys walk over a bridge. One guy falls in. The other is named John.” Yep, that's it.

“I agree that my report and accompanying pictures may be used by the DAAD in printed materials, presentations, and on websites in order to inform funding organizations, sponsors, and students about the RISE program.”