

One of my favorite cities: Tübingen

A chance to work on an exciting research project for a large international corporation while being able to explore Germany and Europe sounds like a dream doesn't it? Well, Walt Disney said: "all our dreams can come true, if we have the courage to pursue them" and with the help of the DAAD Rise Professional program, I turned that dream into reality! I worked on a corrosion research project during my three month internship at Robert Bosch GmbH. My time in Germany not only created fun and exciting memories but it was an experience I feel will help me achieve my career goals. I will provide a walkthrough of my experience and make recommendations from what I have learned.

I was in the first year of my master's degree in mechanical engineering when I heard about the DAAD Rise Professional program. At the time, I was conducting research on polymer composite materials for the Advanced Composite Materials Engineering (ACME) Group at the University of Alberta. I considered Germany to be the economic and technology powerhouse of Europe so being able to conduct research there was, in my opinion, a great opportunity. The application process was straightforward. On the DAAD website, there was a long list of available positions from many different fields of engineering and the sciences. I could apply to three positions. My career goal is to be involved in product development within the mobility industry, so it was exciting to see there was a position at Bosch, one of the world's largest automotive suppliers! The research project was a good choice for me because it was related to automotive applications and I am interested in chemistry and material sciences. To apply, I needed to prepare a few documents such as my resume, cover letter, list of courses taken and a reference letter from my supervising professor. Around two to three months after submitting my application, I received the great news that I had been offered an internship with Bosch!

I was lucky to have met a couple German exchange students in the ACME Group and learned details which helped me prepare for life in Germany; however, DAAD provided many resources which helped as well. I recommend to start preparing for the trip early since accommodation can be hard to find. Different countries have different rules for visas/residence permits so I suggest checking the website of the German embassy or consulate in your country. Bosch required that I have my German residence permit <u>before</u> starting the internship so it'd be a good idea to contact your company after you have been selected to see if they require this as well.

Bosch is an amazing and diverse company! It hires over 400,000 employees worldwide and has four business sectors: Mobility Solutions, Industrial Technology, Energy and Building Technology, and Consumer Goods. This means Bosch provides a wide range of products and services. For example, Bosch technology is used in automated driving, industry 4.0 manufacturing, smart home devices or even household appliances such as dishwashers! Fun fact: 3 out of 4 smartphones contain a Bosch sensor!

I worked at the Bosch research campus in Renningen; a place for advanced research, engineering and entrepreneurship. The facility opened in 2015 and it is very modern. I was nervous to be living in a completely new country and working at a new company but my supervisor and coworkers were very friendly and helpful from Day 1. My team would often eat lunch together and since lunch is subsidized by the company I got great food at inexpensive prices!

My research department specialized in chemistry. The work environment in my department was relaxed and I had flexible working hours. I studied corrosion occurring in automotive systems. My main task was to conduct literature review and then write a summary report about the formation of corrosion and the main parameters that affected it. I was introduced to two experimental setups for conducting corrosion experiments and assisted another master's student with a few experimental trials. It was clear my supervisor wanted me to learn by conducting hands on experiments which seems to be a highly valued part of research at Bosch. For the most part, I wrote the report independently and had meetings with my supervisor every few days to discuss my progress. My supervisor also provided pointers to help improve my German language skills. Knowledge of German was not required for my role but I found knowing some basic German was helpful for living and travelling in Germany (such as asking for directions or findings items in a store) since not everyone in Germany can speak English.

At the end of the internship, I delivered a presentation summarizing my research to a group of colleagues. My understanding of the corrosion process and the operation of a couple automotive systems had increased significantly. I had greater appreciation for the different activities that were underway and how they all tied together to help achieve the main objective of the research project.



The famous castle in Heidelberg

Besides work, there were plenty of fun activities to do. The town of Renningen is very close to nature and there were many bike trails in the area to explore. The town is about 30 minutes away from the city of Stuttgart, the capital of the state of Baden Württemberg. The Stuttgart region is home to two famous car manufacturers; I took tours of the Mercedes Benz and Porsche factories and saw the car manufacturing process first-hand! I also attended a football (soccer) game in Stuttgart; cheering along with around 50,000 fans was a great time!

I travelled all over the state of Baden Württemberg. The public transit and long-distance train system were surprisingly

easy to navigate; phone apps in English were available to figure out which buses/trains to take. I frequently used the "Baden-Württemberg-Ticket" which allowed me to ride on the trains and public transit systems within the state for an entire day. I also went to Heidelberg for the meeting organized by DAAD. We got to tour the BASF chemical plant and the famous Heidelberg castle! It was a lot of fun to meet other DAAD interns and share our experiences.

I considered Germany to be the economic and technology powerhouse house of Europe but after living there I realized that Germany also has a long and interesting history and is home to friendly people, beautiful scenery, and good food. The companies I visited were impressive; the facilities were large and lots of high-tech equipment was on display. My internship at Bosch was enjoyable; I learned a lot of theory and also helped conduct experiments. I highly recommend participating in the DAAD Rise Professional program; it was a memorable experience that should help me achieve my career goals.

"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."