

## DAAD Rise Professional Experience, James Crawford, May 16 – July 28, 2019 Colorado School of Mines PhD Student

### Working at BASF

I spent my DAAD Rise Professional Internship at the world's largest chemical company, BASF. BASF is located in Ludwigshafen, Germany. Known for its historical impact in raw chemical production, including the Nobel prize invention by Fritz Haber and Carl Bosch for the synthesis of Ammonia (<https://www.basf.com/ca/en/who-we-are/history/1902-1924.html>), BASF is a chemical giant. To have the opportunity to work inside the city sized campus, complete with onsite bakeries, canteens, coffee shops, and a wine cellar, a barbershop, and a drycleaner, was an incredible experience. My research was in the Advanced Materials & Systems Research Department with a focus on pigment dispersions. I worked alongside lab technicians to understand structure-function relationships of polymers and dispersions. The project I worked on was very well structured and I was able to complete the work with some exciting new insights on polymer chemistry. My colleagues were always helpful, respectful, and outgoing. My boss was patient, understanding, and an excellent mentor. I highly recommend applying for a project at BASF.

### Living in Ludwigshafen

I had no problem finding a place to live in Ludwigshafen, where rent was relatively cheap (290 euro/month). I was lucky to live with a hilarious and fun loving German student who was from the surrounding area. We made fast friends and explored the Rhein-Neckar-Pfalz region complete with bike rides, day trips to the lake, camping, wine hikes, and adventures to local attractions.

Ludwigshafen itself is not a Baroque or classical German city. It is certainly a worker's town propped up economically by BASF. Site-seeing, beautiful little streets, and evening river walks are not in abundance in Ludwigshafen. I recommend spending your free time in Mannheim, Heidelberg, and in the wine country to satisfy these desires.



### Travelling in France and Germany

I made friends with one of my colleagues from Strasbourg, France. He invited me to visit him, and we spent two incredible weekends exploring the gothic Cathedral (**Fig. 1**) and celebrating the annual Day of Music (**Fig. 2**) where the city center is opened to street performers, novice and professional. The two hour bus ride from Ludwigshafen is no major hurdle considering the charm of Strasbourg.



I was lucky to be visited by my Fiancé (**Fig. 3**), her sister, and my parents during my 10 weeks in Germany. With my Fiancé and her sister, we travelled to Berlin to see the sites, enjoy the company of old friends, and experience the exciting nightlife of the city. If you stay in Germany for any extended period, I highly recommend traveling to the quirky, energetic, and chaotic international masterpiece that is Berlin (**Fig. 4**).

### Logistics

As far as logistics are concerned, I have never had a smooth transition when entering Germany. The first time I lived in Germany was in 2012 when I spent a semester abroad in Berlin. Both times, I struggled to understand the nuances of German bureaucracy. To register with the local authority, usually one takes a trip down to the local Rathaus and fills out the registration form (bring your

passport, work contract, rental contract, etc.). Unfortunately for me, and for reasons that are still unclear, I had to register at the Foreigners Office. Not surprisingly, getting a meeting at the Foreigners Office took some serious leg work as Germany is experiencing a large influx of immigrants (second most migrated to country after the USA according to Organization for Economic Co-operation and Development). After weeks of waiting, I was able to register. Unfortunately, my internship finished, and I never received my tax ID number or confirmation of my registration. I am not complaining, but I have found that the registration process is highly dependent on the attitude and chemistry you have with the Rathaus employee you are working with. I recommend bringing a big smile, a complete collection of every document you have ever owned, and a native German speaker when you try to navigate this process.



**Fig. 3:** Me and my Fiancé Dani in Heidelberg

### **DAAD Meeting in Heidelberg**

This was certainly a highlight of the program. If you have the chance, I recommend planning your internship with the conference as a mid-way point. You will get the chance to meet and network with other DAAD RISE Professionals and the wonderful DAAD RISE Pro employees that made your experience in Germany a reality. Have fun, make new friends, and maybe you will have the chance to visit your new friends around Germany later in your internship!

The backdrop for the conference is Heidelberg University (Founded in 1386, oldest in Germany). Undergraduate and graduate students share their research in 10 minute talks for a few hours. If you plan to present at the conference, I highly recommend taking time to prepare a good talk, as the caliber of the undergraduates was far beyond my expectations. It is so inspiring to listen to enthusiastic young scientists.

### **Final Remarks**

The DAAD RISE Professional internship was an excellent experience. I have exposure to a new research topic, I have friends and professional contacts from countless countries around the globe, I improved my German language skills, I took a crash course in bureaucracy, and I have explored many new places. I want to thank BASF and the DAAD for the opportunity to learn and explore Germany! I know I will come back someday.

Best,

James Crawford



**Fig. 4:** Riding a tandem bike in Berlin was more challenging than expected

*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.*