

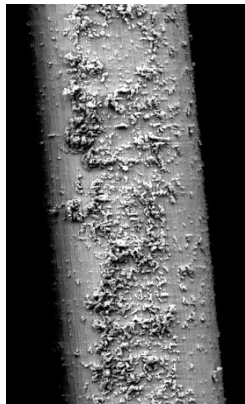
My RISE Experience 2023

Kaelyn Dunnell

My RISE experience was an incredibly fulfilling experience. I learned much about myself as a student, researcher, and person, and I am incredibly grateful to the DAAD program for allowing me to have such an incredible experience that resulted in my personal and professional growth.

A typical day for me at Forschungszentrum Jülich began early in the morning when I would wake up at my apartment in Cologne. I commuted every day around an hour from Cologne to Jülich and back again—and as a result, intimately got to know Deutsch Bahn. After arriving in Jülich, I usually met my supervisor in his office, went over plans for the day, and then headed to lab. I spent most of the summer working on an Electrophoretic Deposition (EPD) experiment, in which I attempted to coat tungsten fiber weaves with yttrium oxide. In one day, I usually ran a few experiments in lab, while my lab mate analyzed results from previous experiments (or vice versa). We'd usually break this up with a lunch break, either with my supervisor or other RISE interns in the research center canteen. Then, we'd resume work, and head home! My roommate and I would typically workout together, a quick run or Pilates workout. Then, I'd make dinner and relax—whether that was through talking a walk in Cologne, reading, or watching something!

My internship was challenging, as this was my first lab position, and I learned a lot about life as a researcher, as well as life as a graduate student. It was the first time I was responsible for my own experimental project, and I had to take full responsibility in getting myself trained on machines, asking for help when I needed it, and absorbing as much as I could from those who were generous enough to share their work with me. I feel that I succeeded in advocating for myself and my needs as an intern and researcher, and that I took advantage of the opportunities that Forschungszentrum Jülich offered.



SEM Photo of a Tungsten Fiber with Yttrium Deposited on Top



My labmate and I peeking into a lab waste bin

I experienced many challenges and successes from living and working abroad, as well. Firstly, the language barrier was a challenge that I hadn't anticipated. Although nearly everyone that I interacted with spoke fluent English, I was unable to really get a grasp on the ambiance, or environment of Cologne (where I lived and commuted from), simply because I couldn't overhear conversations on the street or completely understand everything that was written on buildings. However, I do feel that as I continued to practice my German throughout the summer, I noticed a tangible difference in how much I was able to communicate and read. Another challenge I faced was getting used to the transport system in Germany. The trains are fantastic, and very accessible, but often delayed or cancelled completely. I had to learn the best ways to anticipate and plan for derailments to my commute, as well as to my travel plans. My largest success, however, was that I had a fantastic summer.

Some recommendations I have for future RISE interns include those for a German bank account, housing, and traveling in and around Germany. I used N26 for my bank account, and it was quite easy to open even before I had left for my internship. A large reason for this is because it does not require a German phone number to open, while other German banks do. N26 is also super easy to use with WISE, which is an app for transferring money between international accounts. I used it to transfer funds between my German and American bank accounts. For housing, I used the website Housing Anywhere, which had a lot of great

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options for me in Cologne. It was easy to communicate with the landlord, and the website lays out all future payments and forms, with the dates they are needed by. Using Housing Anywhere was easy and helped me stay on top of things. Lastly, I traveled in and around Germany almost every weekend. For this, I'd recommend buying tickets early, and using Flix Buses or Trains. This summer, DeutscheBahn offered the 49 Euro Deutschland Ticket, which allowed you to travel on all German trains (minus ICs and ICEs) for just 49 Euros a month. Before booking ICEs to get to your destination, I'd recommend seeing how far you can get on regional trains with the Deutschland Ticket (if it is offered again).



My roommate and I with other
Forschungszentrum Jülich interns!

My overall impression of living and working in Germany for a summer was that Germany is a beautiful place with wonderful opportunities—and not just for research, but also for travel. I enjoyed having an actual work-life balance, in which I felt fulfilled not just at work but also outside of work, which I never felt came at the expense of my job. This summer has greatly informed my career plans, in that I am excited to continue research in international settings with cross-border collaborations. I am also now considering a research position after I graduate from MIT. But most importantly, Germany affirmed my desire to travel, explore, and experience life in places different from home. I am excited to take home a newfound appreciation for good bread, as well as the reminder to stay open-hearted and open-minded. I am excited to return to Germany, and I will be sure to recommend the RISE program to fellow students.

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.