

Summer 2023 Rise Internship in Karlsruhe Germany

My name is Seth Baker, and I had the privilege of receiving a DAAD scholarship through the RISE program to undertake three months of research at the Karlsruhe Institute of Technology in Karlsruhe, Germany. My research focus was centered on developing innovative chemical sensors for the detection of drugs and biomarkers in various biofluids. This opportunity allowed me to not only connect with professionals in the German and European chemical research industry but also provided me with invaluable experiences beyond the academic realm.

One of the biggest challenges I encountered during my internship pertained to securing suitable housing. After a diligent search, I eventually secured a long-term rental (spanning 10 weeks) through Airbnb, conveniently located near the north campus, aligning well with my requirements. Reflecting on this, I acknowledge that if I was to do this again, I would explore a wider range of accommodation options, considering locations more distant from my workplace, as the public transportation network in the region offers seamless connectivity. Speaking of transportation, I highly recommend acquiring the "Deutschland Ticket," which, priced at 49 euros per month, provided unrestricted access to all trains and buses nationwide (excluding express ICE trains). This ticket proved to be immensely beneficial, and for longer weekend excursions to neighboring countries, I utilized the DB Navigator app to secure tickets for ICE trains. A lesson I quickly learned during my stay was that booking these long-distance train journeys well in advance yields the most cost-effective fares.

Making new friends in a new country can be a challenging task, yet my experiences in Germany taught me the most successful approach involves engaging with both the academic community and different sports activities. Collaborating with postdoctoral and PhD researchers proved to be rewarding, as they were also willing to show me around the region and go out for drinks and meals in the city. Additionally, engaging in recreational sports emerged as another avenue to cultivate friendships. This involved reaching out to local clubs, inquiring about participation options and membership details. The open and inclusive atmosphere within these sports communities helped build meaningful connections.

The working environment and camaraderie I encountered at KIT left a strong impression on me. My primary collaboration was with a postdoctoral researcher, with whom I tackled various projects. The PhD students in the lab were incredibly supportive, readily assisting me with any questions I had about my project. At the start of my internship, my Principal Investigator guided me through experiment execution and the operation of various instruments and software. As the internship progressed, I found myself increasingly involved in proposing and conducting independent experiments, culminating in crafting presentations to showcase my research outcomes to the team.

Seth Baker
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The short duration of my research in Germany proved to be remarkably fruitful, as I successfully developed an electrochemical sensing system capable of detecting diverse drugs. My Principal Investigator also emphasized the theoretical understanding behind everything I was doing which I really appreciated and I think greatly added to the value of my experience overall.

One of my favorite experiences during the internship was the conference that was held in the historic city of heidelberg. The opportunity to meet and share ideas with other interns going through the same experience was very valuable and these connections will last much longer than my internship. It was also a great experience to present and share my research to my peers and hear different ideas and comments from different subject areas.

Overall I would say my experience in Germany had a transformative effect on my character and I would recommend this program to anyone interested in research and gaining lifelong memories and lasting international connections.

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.