

DAAD RISE 2018 Final Report

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Subject: Astronomy

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When my airplane touched down in Berlin, I suddenly realized how crazy it was to go live in another country alone. I soon found the exact opposite: my Ph.D. student Andrea came to pick me up from the airport, and I was welcomed into a big research group which became my family. The institute is situated in the old Prussian palace grounds and we are directly across the road from Park Babelsberg with its castles, trails, and a lake beach. I share a large, airy office with Andrea and two officemates. The first thing we did entering the office (and everyday after that) was opening the window to the greenery outside and taking in the morning breeze.

Research here is surprisingly international. English is the lingua franca of research, so I had no problems reading posters or listening to seminars. We hosted visitors and collaborators from everywhere: the National Solar Observatory in the U.S., guest speakers from my home university UT Austin, and I was amazed by the connections and collaborations fostered by the institute. My group itself is very diverse: we have students and postdocs from Greece, Bulgaria, Spain, India, and now me. We all speak English because this is the common language that everyone understands. I am in the optical solar physics group at AIP, and the group regularly observes in Tenerife, Spain. I work with data from a small telescope at this observatory, and I developed a method to calibrate full-disk images of the Sun and remove background variations introduced by the instrument.

Since AIP is not a university but a research institute, there are no undergraduate students here except me. I spent most of the time with people in my group. In my first week here, Andrea took me on a five-hour walking tour of Berlin Mitte and told me all about the city. The professor led a hike on Sunday and the group went swimming afterwards. I could ask them any questions about Berlin or Potsdam, and Andrea helped me find housing in Berlin. The group was extremely kind and friendly, and they made me feel at home.

A typical day in my summer begins with a tram ride around 8 to a local bakery, where I spend ten minutes eating fresh bread and drinking a cappuccino while waiting for the bus up to the institute. I get to the office before 9 and start working. The group goes to lunch together at noon, and then I start working again until around 5. Then I take the bus down and, depending on the weather, either get a gelato or go grocery shopping and go home. The hours are very flexible especially for students. Some people in my office prefer to get here later and stay until late, but I find the public transportation easier at regular commute times. I am not required

to work eight hours everyday, but I am here because I want to finish a first-author scientific paper.

Living in Germany has been as much an adventure as my science project. Everyday there is something to discover. From the love of asparagus to gathering for a beer after work, German culture slowly manifests itself in my daily life. Berlin is a vibrant city and Potsdam has its own tranquil charm. Before concert season ended in July, I got to listen to the famous Berlin Philharmonic Orchestra. I could spend Sunday morning sketching the bust of Queen Nefertiti in the Neues Museum, and at dusk I sat on the shores of Schlachtensee after swimming in crystal clear water. In Potsdam, I watched swallows dart across the warm evening sky in Schloss Sanssouci while German students sat in the Baroque garden drinking wine with their friends. I learned to love canvas bags because I can lay it on the grass and sit in a park, like when I went to the fireworks symphony in Potsdam.

Astrophysics research was my way of exploring the wonders of the universe, but it has also taken me farther than I could ever imagine on Earth. There's no better opportunity than the RISE program to travel far and experience a life-changing summer.

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