

DAAD WISE

Interview with Raghav Singhal, a master's student from the Indian Institute of Technology (IIT) Bombay, about his research internship as a DAAD WISE fellow at Forschungszentrum Jülich's Peter Grünberg Institute – Neuromorphic Software Eco System (PGI-15).

“IT HAS BEEN A GREAT EXPERIENCE FOR ME!”



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Raghav Singhal in Slovenia

You have now been working as an intern at PGI-15 for about two months. How did you get the idea to apply for this position?

Raghav Singhal: I applied for the German Academic Exchange Service's (DAAD) WISE programme because I wanted to go abroad, and this fellowship offers Indian undergraduates studying natural sciences and engineering the chance to pursue a research internship in Germany. I chose Forschungszentrum Jülich because during my studies at the Indian Institute of Technology (IIT) Mumbai I came across several publications of Prof. Emre Neftci – the head of PGI-15 – on neuromorphic computing that were very interesting to me. I sent him an email detailing my study programme and the research I had done so far. Aside from conducting research at my home university, I also spent a semester in Sweden at KTH Royal Institute of Technology. Prof. Neftci then agreed to host me at his institute.

What is your field of study?

Raghav Singhal: My field of study is electrical engineering and machine learning, and my current research topic is self-supervised learning in a neuromorphic setting. Self-supervised learning involves learning representations from data without labels. We plan to do so using spiking neural networks.

How have you found your stay at PGI-15?

Raghav Singhal: Obviously, it has been a great experience for me. The research group is very nice. I get a lot of support from Prof. Neftci as well as from the postdocs and doctoral researchers in the group. They all share their experience and expertise with me, which helps me with my project. The computing facilities are very good and the working space is comfortable.

You have worked in research groups in Mumbai and Stockholm and at Forschungszentrum Jülich so far. Have you noticed any differences in research cultures?

Raghav Singhal: There is one major difference here, which is that I get more time slots at the computing facilities. Apart from that, I can see no difference. I have been very happy with all the groups I have worked in. They all had a similar structure and offered a good mix of freedom and guidance.

Is this your first time in Germany? How did you find accommodation?

Raghav Singhal: It is my first time living here, yes, but I also visited Germany while I was staying in Sweden. It took me about a month to find accommodation online. Now I am living in a shared apartment with several flatmates, which is going very well. From my experience in Sweden, I already had an idea of what to expect when arriving in a new country. So my start here was a mixture of being prepared and asking around for help. It took me about a week or two to settle in. First, I had to figure out some stuff like where to get a SIM card, how to open a bank account, and how to move around. Also, people at the lab helped me with things.

Did you travel around Europe in your free time?

Raghav Singhal: Yes, I got an Interrail ticket and went to different places in Germany and also to Czech Republic, Slovakia, and Slovenia. I liked Slovenia best because of its natural beauty.

What are your plans for the future?

Raghav Singhal: When I return to Mumbai I will have another year of college. Then I will write my combined bachelor's + master's thesis, and after that I want to apply for a PhD.

What advice would you give to a fellow student coming to Germany for the first time?

Raghav Singhal: If someone comes for the first time, it can be a bit of a shock. Maybe they were surrounded by family and friends at home and now they are here on their own and uncertain about what will happen. But it is a great chance! I would say: Be open-minded and ready to embrace new experiences. You will meet people with different points of view and you can learn a lot about how people live. It might get hectic at times and many things will happen, but everyone loves it in the end. It is definitely worth it!

What did you learn during your stay here apart from things related to your research?

Raghav Singhal: I learned to be more independent and manage my life on my own. Take decisions on my own. Also, I benefitted a lot from talking to people and listening to their ideas. I gained more self-confidence and openness.

So you would recommend that people apply for a WISE scholarship?

Raghav Singhal: Oh yes, I would definitely recommend that. It is not easy to get a scholarship for a research internship, so the DAAD programme is quite unique. It also offers you the chance to choose any supervisor you like in Germany. For me, the decision to come to PGI-15 was a very good one. It is such a great environment to work in!

The interview was conducted by Kristin Mosch.