Student Assistants – Quantum Computation and Optimization

The Fraunhofer-Gesellschaft (www.fraunhofer.com) currently operates 76 institutes and research institutions throughout Germany and is the world's leading applied research organization. Around 30 000 employees work with an annual research budget of 2.9 billion euros.

Recent progress in **Quantum Computation (QC)** hardware has triggered many new research initiatives in this field, making it a highly relevant topic in both academia and industry. In our group **»Optimization«**, we conduct research at the interplay between discrete optimization and QC. Our research projects cover quantum circuit optimization, decomposition methods for optimization problems, hybrid quantum-classical algorithms and quantum benchmarking. Depending on your educational background, personal preferences and current project status, you can contribute to any of these fields.

You are interested in combining research and practice and would like to develop further in the field of quantum computation?
Then have a look at our offer!

What you will do
- You implement quantum and classical algorithms
- You conduct computational experiments and analyze the results
- You conduct systematic literature research
- You read scientific literature and extract information relevant for our research projects

What you bring to the table
- You are currently studying mathematics, physics, computer science or a related field
- You are interested in combinatorial optimization and quantum computation
- You have experience in programming, preferably Python

What you can expect
- **Flexible** working hours
- **Open** and **friendly team work**
- **Varied** tasks with room for **creativity**
- Exciting **seminars** and **events**
- **Networking** with scientists
- **Active contribution** in applied research
- **Interesting** and **innovative** projects

Weekly working hours are determined by agreement. You can start from now on (as a student assistant from **10** to **20** hours a week or as an intern for a period of at least three months). You can reduce your hours before exams and increase them during semester breaks. You can flexibly determine the working days. After your studies, you have the option of working with us full or part time.

We would be happy to offer you the opportunity to write a bachelor's or master's thesis in cooperation with us in the above-mentioned subject area. The thesis will be assigned and carried out in accordance with the rules of your university. For this reason, please discuss the thesis with a professor who can advise you over the course of the project.

We value and promote the diversity of our employees' skills and therefore welcome all applications - regardless of age, gender, nationality, ethnic and social origin, religion, ideology, disability, sexual orientation and identity.

Interested?
Apply online now (PDF: cover letter, CV, transcripts). We look forward to getting to know you!

Fraunhofer-Institute for Integrated Circuits IIS
www.iis.fraunhofer.de/en

Requisition Number: 1480596   Application Deadline: none   Location: Nürnberg