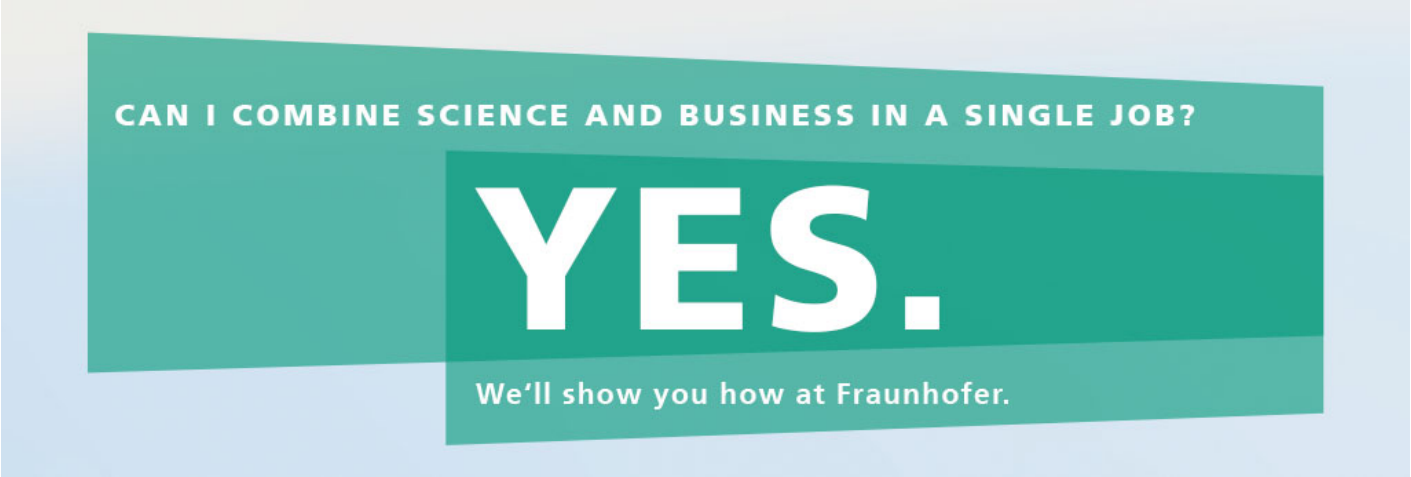
Stellenbezeichnung: Student Assistant/Intern in the field of machine learning (IOF-2023-24)



Student Assistant/Intern in the field of machine learning (IOF-2023-24)

Fraunhofer is the largest organization for application-oriented research in Europe. Our research fields are based on the needs of people: Health, Safety, Communication, Mobility, Energy and Environment. We are creative, we design technology, we design products, we improve processes, we open new paths. For this, it was named "TOP 1 Employer Germany" in the 2018 Trendence Graduate Barometer in the research category.

The Fraunhofer Institute for Applied Optics and Precision Engineering IOF in Jena conducts application-oriented research in optical systems technology directly on behalf of industry and as part of publicly funded collaborative projects. The Fraunhofer IOF's range of services includes system solutions, starting with new design concepts, through the development of technologies, manufacturing and measurement processes, to the construction of prototypes and pilot series for applications in the wavelength range from millimeters to nanometers.

The project group SILIQUA ("Silicon-based Photonic Building Blocks for On-Chip Lighting, Modulation, Sensing and Quantum Applications") at the Fraunhofer IOF deals with active silicon photonics, in particular the functionalization of silicon resonators with electro-optically active coatings or defects. Nanoscopically modulatable photonic silicon resonators are developed for integration into prototype photonic silicon LEDs, lasers, quantum light sources, modulators or chip-level sensors. In the process, the design and fabrication of the resonator structures are optimized using machine learning methods.
To support the SILIQUA project group, we are looking for a research assistant to develop algorithms for data analysis using machine learning methods. The work can be linked to data generation in current experiments or optical simulations of the group. Within the scope of the job there is the possibility to write a thesis (Bachelor or Master).

What you will do

- Creation of source codes for data analysis with the help of machine learning methods
- If necessary, generation of data sets in experimental setups or simulations for current projects
- Using the results to further develop measurement methods or components
- Collaboration with multinational teams
- Documentation of the results in theses or publications

What you bring to the table

- Student of physics, materials science, laser and optotechnologies, engineering, ophthalmic optics or a related field of study.
- Good knowledge of the Python programming language
- Experience with machine learning methods and GitHub version management is an advantage
- Great interest in the above mentioned subject area
- Independent, flexible and reliable way of working, creative and analytical thinking, as well as team orientation and communication skills
- Friendly, reliable and open manner

What you can expect

- Collaboration in challenging research and development projects.
- A collegial, open-minded and friendly team
- Flexible working hours that allow you to balance your studies and on-site experience
- Extensive professional support from scientific mentors.

The weekly working time is 39 hours when writing a thesis or completing an internship In the case of student assistantships, this is agreed on an individual basis. Depending on the employment relationship, remuneration is based on the general works agreement on the employment of scientific assistants or on the federal guidelines for interns' remuneration.

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. Severely disabled persons are given preference in the event of equal suitability.
Interested? Apply online now. We look forward to getting to know you!

Fraunhofer Institute for Applied Optics and Precision Engineering IOF
www.iof.fraunhofer.de

Requisition Number: 64181 Application Deadline: 04/05/2023