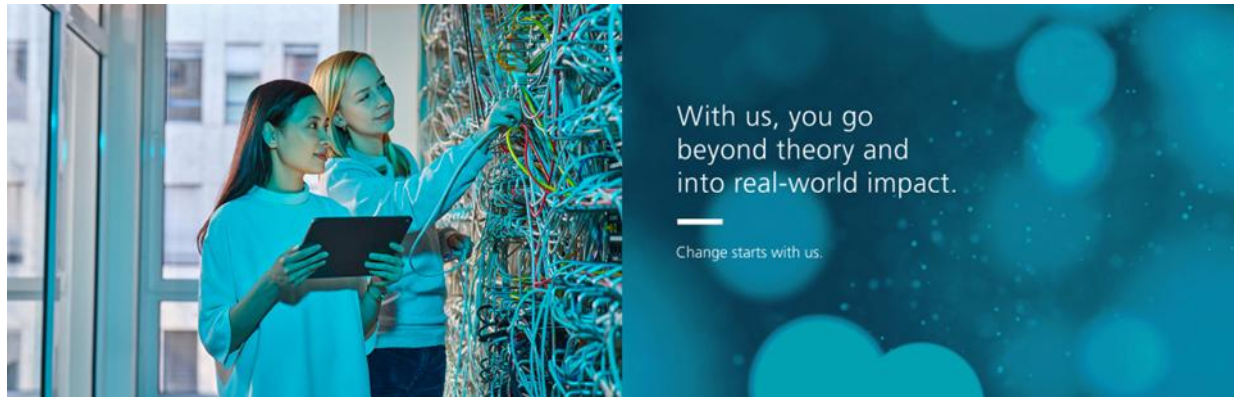




Working Student – Machine Learning for Audio Compression (all genders)

Welcome to Fraunhofer Institute for Integrated Circuits IIS!

As the [largest institute](#) within the Fraunhofer-Gesellschaft, we have been conducting research for over 30 years in diverse fields such as artificial intelligence, microelectronics, sensor systems, data collection, signal processing and transmission. Talents from various engineering and natural science disciplines will find a wide range of exciting research topics under a single roof. A few highlights that reflect our innovative strength: Neuromorphic computing, 5G/6G mobile communication technologies, generative AI in speech and signal processing, and X-ray imaging for e-mobility. And that's just the beginning! **Which sustainable solutions will you find with us?**

**You are interested in advancing your skills in Machine Learning while working on audio processing and compression technologies?
Then have a look at our offer!**

Be part of change

The department AME-A develops innovative codecs for the transmission of audio signals. Our solutions are suitable for a wide range of signals—from speech and music to immersive 3D audio—across a broad spectrum of bitrates and are already being successfully used by major providers in the streaming and broadcast industries.

- **Machine Learning:** You implement neural network components and architectures, develop training and evaluation pipelines, and analyze model performance to continuously improve results.
- **Audio & Data Processing:** You create and prepare training datasets, process audio data using signal processing techniques, and support the design and evaluation of listening tests.
- **Development & Optimization:** You contribute to the development of AI-based audio compression solutions by training and evaluating models, optimizing workflows, and improving model performance.

What you contribute

- You are currently studying **Computer Science, Electrical Engineering, Data Science, Artificial Intelligence** or a **related field**.
- You have a basic understanding of **Machine Learning / Deep Learning** and are familiar with **signal processing** concepts and **audio data** (e.g., sampling rate, FFT, spectrograms).
- You have strong programming skills in **Python** and enjoy implementing and experimenting with **machine learning models**.
- You are familiar with **Git** and have basic experience working in a **Linux environment**.
- You are interested in **audio compression** and motivated to contribute to innovative AI-based research and development projects.

What we offer

- **Organize your schedule:** Benefit from flexible working hours that are perfectly compatible with your studies.
- **Become part of a creative team:** Experience an open and friendly working atmosphere in which your ideas are valued.
- **Variety that inspires:** Look forward to diverse tasks that inspire and challenge you.
- **Shape the future with us:** Take part in application-oriented research and put your theoretical knowledge to practice.
- **Innovation that inspires:** Exciting and pioneering projects that make a real difference.

We will agree your start date and weekly working hours with you individually (as a working student **8 to 20** hours per week for **at least one semester**). You can reduce your hours before exams and increase them during semester breaks.

We are looking for someone interested in a **long-term collaboration**, and please note: the position is **on-site only**. You can set your working days flexibly. After your studies, there are attractive opportunities to join the institute on a full-time or part-time basis. You can flexibly determine the working days of your fixed-term employment contract.

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 people are given preference if they are equally qualified.

About Fraunhofer

The [Fraunhofer-Gesellschaft](https://www.fraunhofer.de) is one of the world's leading applied research organizations. 75 institutes develop cutting-edge technologies for our economy and society – more precisely: 32 000 people working in technology, science, administration and IT. They know: If you join Fraunhofer, then you are able to promote change. For themselves, for us and for the markets of today and tomorrow.

Ready for change?

Then **apply now and make the difference!** (PDF: Cover Letter, Resume, Certificates).

Do you have questions about the application process? Our recruiter Svenja Hofmann will be happy to assist you.

E-Mail Address: recruiting@iis.fraunhofer.de

Location: Erlangen

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

