

CAN I COMBINE SCIENCE AND BUSINESS IN A SINGLE JOB?

YES.

We'll show you how at Fraunhofer IIS.

For the »Audio and Multimedia Technologies« division in **Erlangen**, the Fraunhofer Institute for Integrated Circuits IIS is currently seeking

Master Thesis Student

in the Research Area of Deep Learning for Speech Processing

The »Audio and Media Technologies« division of Fraunhofer IIS constitutes one of the world's largest organizations dedicated to audio, speech and media processing. It has been an innovator in sound and vision for over 25 years and repeatedly won international competitions in the audio and media field: e.g. with mp3 and codecs of the AAC-family. Over 200 engineers and scientists develop first-rate technology, which is sold world-wide.

In recent years, Fraunhofer IIS has been involved in researching new ways of approaching classical speech processing problem with the help of Deep Neural Networks. In particular, we have developed high-quality efficient solutions for Text-to-Speech and Speech Coding involving Generative Adversarial Networks (GANs). We want to bring these models to edge devices and be able to deploy them on low resources without having to compromise too much on quality.

Your responsibilities

- Optimize our existing GAN solutions for both inference speed and memory, to enable applications like Speech Coding or Text-to-Speech on edge devices
- Prune, quantize and compile the obtained model for deployment
- Document and analyze the results

Your profile

- Good knowledge in training Deep Neural Networks ideally GANs
- Experience in Python programming and ideally in PyTorch
- Some knowledge in C/C++ and ideally some experience with DNN compilers (e.g. TVM or ONNX)
- Some knowledge in Digital Speech or Audio Processing is a plus
- Self-motivated working, focused and analytical skills

What you can expect from us

- An **open** and **cooperative** working environment
- Collaboration in **interesting** and **innovative projects**
- Many opportunities to gain **practical experience**
- Collaboration in a **committed** and **interdisciplinary** team

For FAU students: The thesis can be supervised by Prof. Dr. Bernd Edler.

For external students: The topic will be assigned and carried out in accordance with the rules of your university. For this reason, please discuss the topic with a professor who can advise you over the course of the project.

If you have any questions about this opening, please contact: Guillaume Fuchs (guillaume.fuchs@iis.fraunhofer.de)

Interested?

Join our team and work with us on the technology of tomorrow!

Please apply for this position using the following link: <https://recruiting.fraunhofer.de/Vacancies/60758/Description/2>

Please include a cover letter, your CV and your latest transcripts of records (as PDF) and quote ID number **60758-AME**. Address your application to Nina Wörlein.

Please let us know how you learned about this job opportunity.

Additional information is available on our website: www.iis.fraunhofer.de/en