

CAN I COMBINE SCIENCE AND BUSINESS IN A SINGLE JOB?

YES.

We'll show you how at Fraunhofer IIS.

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

Master Thesis Student

Metric Learning Algorithms for Text Classification in NLP

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 worldwide, in Europe, USA, China, Korea and Japan.

Project description

Natural language processing (NLP) is widely used in task-oriented dialog systems and smart voice assistants. Among the main challenges in the development of such systems are the optimization and generalization of NLP methods to different domains under the low-data setting in dialog systems. In this project, we aim to address these challenges using powerful metric learning algorithms to obtain an optimal metric space that can be used for text classification in NLP.

Your tasks: You...

- learn the theories of an existing metric learning algorithm for classification in NLP
- implement the algorithm using the PyTorch framework
- perform an extensive quantitative analysis of the implemented solution in terms of performance accuracy and generalizability
- optimize and adapt the algorithm to our use-cases

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.

Requirements

- You are a Master's student in Computer Science, Data Science, Electrical/Electronic Engineering, Computational Linguistics, or related degrees
- You have experience in PyTorch
- You have knowledge in statistical machine learning, deep learning, hyperparameter optimization in machine learning algorithms, linear algebra
- You are motivated to work on complex research and development tasks within a R&D team

What you can expect from us

- An **open** and **cooperative** working environment
- Collaboration in **interesting** and **innovative projects**
- Many opportunities to gain **practical experience**
- **Flexibility** concerning your working hours

Interested?

Please apply for this position using the following link: <https://recruiting.fraunhofer.de/Vacancies/63159/Description/2>

Applications are possible in **German and English**. Please include a cover letter, your CV and your latest transcripts of records (as PDF) and quote ID number **63159-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