



Karlsruhe Institute of Technology Institute AIFB Research Group "Web Science" Dr. Michael Färber

25.03.2024

Position as Student Assistant (HiWi)

Large Language Model-enhanced Graph Message Passing Network for Link Prediction

- in English or German | Students from all German universities applicable -



We are seeking dedicated student assistants to join us in an ambitious research project focused on advancing the field of academic recommendation networks through the integration of large language models and graph message passing networks. The project aims to revolutionize how we predict and understand linkages within academic citation networks.

What is the topic?

- Implementing and testing algorithms for link prediction, community detection, node classification, and potentially other graph-supervised learning tasks within academic citation networks.
- Exploring the trade-offs between the utilization of textual and structural features in link prediction algorithms, and devising methods to efficiently combine these features.

What prerequisites do you need?

- A strong interest in graph theory, machine learning, natural language processing, or data science.
- Proficiency in programming, preferably in Python, with experience in PyTorch or TensorFlow.
- Eagerness to engage with state-of-the-art research in link prediction and text mining.

What do we offer for you?

- A contract ranging from 40 to 80 hours per month, with a competitive salary based on university standards.
- The opportunity to work flexibly, including the possibility of remote work.
- Engagement with cutting-edge research, offering a broad learning experience and the chance to co-publish findings.
- A potential pathway to a Master's thesis project based on the research conducted.

How to Apply: Interested candidates should send their application, including a brief CV and a transcript of records, to Ms. Chen Shao at chen.shao2@kit.edu