RESEARCH INTERN LARGE LANGUAGE MODELS AS TEXT ENCODER (M/W/D)

fortiss is the state research institute of the Free State of Bavaria for the development of software-intensive systems, based in Munich. The scientists at the institute work in research, development and transfer projects with universities, research institutions and technology leaders in Bavaria, Germany and Europe. They research and develop methods, techniques and tools for reliable, secure and comprehensible software solutions and artificial intelligence applications. fortiss is organised in the legal form of a non-profit limited liability company. The shareholders are the Free State of Bavaria (majority shareholder) and the Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. (Fraunhofer Society for the Promotion of Applied Research).

To strengthen our Machine Learning team, we are looking for a

Research intern / Forschungspraxis (m/w/d)

Large Language Models as Text Encoder (LLM2Vec)

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Your Tasks:

- Conduct a comprehensive literature review on existing techniques for product matching, focusing on the use of large language models (LLMs) as text encoders.
- Investigate and evaluate current methodologies for product description unification and matching in e-commerce.
- Develop or enhance methods using LLMs for encoding product descriptions and utilize techniques such as K-Nearest Neighbours (KNN) to group products in the latent space.
- Analyse and validate the effectiveness of the proposed methods through experiments.

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Who We Are and How We Work:

- We work with e-commerce data analysis and prediction.
- We exchange ideas on projects and new tasks in weekly meetings.
- We always keep our common goal in mind and support each other in achieving it.
- Our cooperation is characterized by flat hierarchies and teamwork.
- We always have an open ear for new ideas, and we tackle new challenges together.
- Enthusiasm for scientific work and research projects invites us to exchange ideas.

What You Should Bring:

- Completion of a bachelor's degree and current enrolment in a Master's degree program in electrical engineering, computer science, information systems, or a related field.
- A strong motivation for research, with a passion for learning and sharing knowledge.
- Solid background knowledge in deep learning and natural language processing.
- Experience in object-oriented programming.
- Hands-on experience in implementing deep learning solutions using Python and PyTorch.
- Excellent communication skills in both spoken and written English.

What We Can Offer You:

- 9-week Forschungspraxis under the framework of TUM EI.
- An international and dynamic work environment surrounded by highly qualified colleagues.
- Opportunities to gain experience with the latest developments in deep learning and numerous avenues for professional and personal growth.
- Exposure to industry work and research, providing valuable insights into real-world applications.
- The chance to publish your work in academic conferences.

Are You Interested?

- Then we look forward to receiving your complete application with curriculum vitae, and current transcript.

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