Student Worker for AI & Backend Development

About Us

The Chair of Software Engineering conducts cutting-edge research and provides engaging instruction in software engineering, with a specific emphasis on software quality, human factors, AI-supported engineering, and empirical studies, especially for the domains of automotive software and AI-based software. We do research with high practical relevance, often in collaboration with companies with the aim of improving the way we make software. We are part of the TUM Campus Heilbronn, integrated into the campus of the Dieter-Schwarz Foundation in one of the most innovative regions in Germany.

Requirements

Mandatory

- Current enrollment in a German university
- Proficiency in at least one common programming language (Java, Python, or similar)
- Proficiency in programming for machine learning (PyTorch, Tensorflow, or similar)
- Familiarity with LLMs and experience using them
- Familiarity with cloud infrastructure and containerization (AWS, Google Cloud, Docker, or similar)
- Basic database management skills (MySQL, MongoDB, Firebase, or similar)
- Good command of the English language

Nice to have

- Experience in training and/or fine-tuning LLMs
- Strong programming skills in Python
- Experience in integrating third-party AI APIs (e.g., OpenAI API) for specific functionalities

Tasks

We are offering a position for a working student in backend development for an LLM-based AI project. Your task would be to develop the backend service for an AI-based application for teaching novice programmers. You will be responsible for:

- Deploying open-source large language models (LLMs)
- Developing or extending an API-based backend service
- Develop specific AI features for training novice programmers (prompt engineering, fine-tuning, retrieval-augmented generation)

What We Offer

- Opportunity to be part of a small development team working on cutting-edge AI applications
- Compensation in accordance with tariff or salary regulations
  - 13.25 € per hour without a bachelor's degree
  - 15.00 € per hour with a bachelor's degree
  - Up to 13 hours per week
- The position is available as soon as possible, initial contract for 6 months, with the possibility of extension.

Application

We look forward to receiving your detailed application documents. Please send them via email to
marvin.munoz-baron@tum.de or umme.habiba@tum.de.

Chair of Software Engineering

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