Lehrstuhl für Nachhaltige Mobile Antriebssysteme
School of Engineering and Design
Technische Universität München

Prof. Dr. Malte Jaensch

Research / Engineer Internship

Transferring Big Data Management Tools in Agentic Framework

Description of the Topic

The rapid growth of industrial measurement data requires more intelligent and scalable data management approaches. Traditional data management workflows often rely on manual operations and predefined processes, which limit efficiency and flexibility when handling large volumes of heterogeneous data. This internship focuses on transforming existing big data tools used in industrial measurement data management into an agentic framework, where AI agents can autonomously perform data handling, analysis, and management tasks. The project aims to explore how modern AI agent technologies can be integrated with industrial data infrastructures to improve automation, adaptability, and user productivity.

Tasks

- Analyze existing measurement data management workflows
- Identify specific data management requirements
- Develop and implement data management skills for AI agents
- Design and prototype agentic workflows for autonomous execution

Qualifications

- Interest in Artificial Intelligence, Large Language Models, and Agent-based Systems
- Familiarity with data management concepts and tools, particularly Excel, Parquet
- Basic Python programming skills
- Good written communication skills for technical documentation and reporting

Period of the Topic / Others

- Research internship and engineer internship will be considered with priority
- Start immediately
- Further connection to a master's thesis is possible

Contact

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We look forward to receiving your application, including your CV and transcript of records.