Professorship Design and Operation of Rail Transport Systems (RTS)
TUM School of Engineering and Design
Technical University of Munich

TUM

Student Assistant (m/f/x) assisting in Research and Teaching on Railway Operations Management

About us

The Professorship for Planning and Operation of Public Rail Transport Systems was established in 2023. The focus of the research group is to develop and implement innovative methods for design and optimized control of efficient and user-friendly rail transportation systems. In our research we deal with questions in network and traffic planning, capacity analysis, as well as traffic management. We are looking for people who are interested in working towards strengthening rail transportation as the backbone of our mobility systems and would like to contribute to the growth of our research group at TU Munich.

In particular, we are seeking a person to assist in establishing our RTS – Smart Rail Traffic Lab supporting teaching and research in railway operations and traffic planning. The RTS – Smart Rail Traffic Lab will allow to experience traffic control situations handled by railway signalers as well as to interact with planning tools and algorithms developed in the group.

Your responsibilities

- Setting up a traffic signaler working place at the Chair.
- Defining a student lab exercise on traffic control for our course on Railway Operations
- Defining of a front-end for interactive control of planning tools and algorithms developed at the Chair.
- Contributing to current research projects in Traffic Planning and Capacity Management.

Your profile

- Ability to work independently and thoroughly, and to quickly adapt to new problem settings
- Good programming skills in Python, Experience in Front-End Development is an asset
- Communication and organizational skills
- Good command of English, preferably also German
- Prior knowledge in railway engineering and railway operations are an asset, but not mandatory

What we offer

- 6-month contract (up to approx. 7h/week – negotiable)
- Interesting research field with high practical and social relevance
- Chance to learn about the current state-of-art in rail traffic planning
- Modern working environment and infrastructure, collaborative working with the members of the RTS Group

Application

Please send your application including a CV, Transcript of Records, and a short motivation via e-mail to application.rts@ed.tum.de. Applications will be reviewed continuously until the position is filled.

For further information about the position please contact Jonas Aumeier (jonas.aumeier@tum.de).