



Student Assistant (m/f/d)

To support our mission „Knowledge Base“ within the LOEWE Research Center emergenCITY (www.emergencity.de), we are looking for a student research assistant **as soon as possible**, with a planned working time of **40 hours per month** (up for negotiation). The position is initially limited to a period of three months, but we are aiming for a longer-term employment if the candidate suits the position.

We are a young, interdisciplinary group of researchers looking for technical solutions to increase the resilience of critical infrastructure. The mission „Knowledge Base“ investigates Smart City data platforms regarding their resilience against crises. We want to use our insights to improve established platforms with the goal of them not being an additional risk for failure during crises, but being able to provide valuable support instead. Our approach is based on decentralization and localization.

The goal of emergenCITY is research on foundations, methods, and solutions for future resilient digital cities. The team is constituted of 23 professors from the field of computer science, electrical engineering, mechanical engineering, political sciences, humanities, law, economics, and architecture.

Tasks:

- Installation and management of a Smart City data platform (FIWARE [1]), as well as automatization of its deployment process.
- Using virtualization to emulate a virtual infrastructure as basis for experiments.
- Support in modeling of infrastructure and actors in FIWARE (for various domains, mainly robotics, water and energy networks).
- Implementing a FIWARE IoT Agent.

Requirements:

- Student of computer science, software engineering or similar
- Good knowledge in the area of software engineering and distributed systems
- Very good programming skills, ideally in one scripting language (e.g., Python) and, in addition, Java or a low-level language (like C, C++, rust)
- First experience with the configuration and operation of (Linux) servers and containers (Docker)
- Ideally, first experience with or interest in virtualization of networks

We offer:

- An exciting research project in an interdisciplinary environment
- Flexible working hours
- Realizing your own ideas in context of the mission

Please submit a cover letter, CV, current transcript of records from TUCaN and, if possible, a reference to a personal programming project (e.g. GitHub Profile) via email to:

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Published 2021-07-01

[1] <https://www.fiware.org/developers/>