



RESEARCH INTERNSHIP IN AUTONOMOUS SYSTEMS

fortiss is the research institute of the Free State of Bavaria for the development of software-intensive systems with headquarters in Munich. The scientists at the institute cooperate in research, development and transfer projects with universities and technology companies in Bavaria, Germany and Europe. The focus is on research into state-of-the-art methods, techniques and tools for the development of software and AI-based technologies for dependable, secure cyber-physical systems such as the Internet of Things (IoT). fortiss is organized in the legal form of a non-profit limited liability company. Shareholders are the Free State of Bavaria (majority shareholder) and the Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V. www.fortiss.org

We welcome Master students who would like to explore her/his interest in autonomous systems like automated vehicles, mobile robotics and even drones to join us for a research internship here, where you can gain experience with sensors, middleware, and software for autonomous systems.

Your tasks:

- Hardware modification, software configuration and implementation activities in one of the following topics:
 - Adaptation of the newest release of Baidu [Apollo](#) on fortiss automated vehicle
 - Integration of automotive sensors and Nvidia edge computing board on a turtlebot3
 - Apply popular open-source projects on turtlesbot3 platform to explore its capability
 - Implementation of state-of-the-art perception/planning algorithms and integrate it to [cyberRT](#)- or [ROS \(2\)](#)-based systems.

Your profile:

- Master student currently enrolled in Electrical and Computer Engineering or a related field.
- Practical experience in programming languages such as Python or C++.
- Good background knowledge in mobile robotics and middleware (ROS or cyberRT).
- Excellent communication skills in English.
- Nice to have experience with machine learning.

Our offer:

- An international and dynamic work environment with highly qualified colleagues.
- Increased experience with real-world applications on a mobile robot or automated vehicle.
- Flexible working conditions, e.g., home office, flexible working hours.
- Continuing Master's thesis on further machine learning topics is possible.

Please submit your application with a detailed CV and a current transcript of records.

Contact for details or direct application: Xiangzhong Liu, xliu@fortiss.org

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