Chair for Robotics, Artificial Intelligence and Real-Time Systems
Department of Informatics
Technical University of Munich

Our team is currently looking for:

Next level self-driving car computer scientists and software architects with an opportunity to pursue a PhD or PostDoc

The Technical University of Munich (TUM) is one of the largest and, in terms of third party funding, one of the most successful universities in Germany. It has been ranked among the best universities in the world and has consistently been named a "University of Excellence" every year since 2006 by the German National Science Foundation and the German government.

The Chair of Robotics, Artificial Intelligence and Real-time Systems led by Prof. Alois Knoll performs research in the various fields including cognitive robotics and autonomous driving. Recent years have seen tremendous progress in the area of autonomous vehicles. However, in order to advance the field there is an urgent need to perform research into self-driving car architectures, software development processes, continuous integration and deployment, with particular focus on safety, security, scalability and reliability.

In order to meet these challenges head-on, the TUM Chair of Robotics, Artificial Intelligence and Real-time Systems has formed a joint innovation lab with a large global player. The tasks of the team you will be working in include:

- working in close collaboration with partners from industry to define requirements for next generation car architectures and car operating systems
- analyzing the state of the art in embedded systems, architecture synthesis, validation and verification, software development processes and standards
- designing, implementing and deploying an innovative toolchain that meets all of the requirements for boosting the productivity of software development in this domain

Skills and experience required:

- Excellent university Master degree or equivalent (MSc thesis required; non-thesis MSc not accepted) or PhD in Computer Science or closely related field
- Familiarity with/experience and interest in formal methods, advanced verification/validation techniques and tools, e.g. automated theorem provers and model checkers
- Excellent programming skills, preferably C/C++ and familiarity with IDEs, such as Eclipse
- Fluency in spoken and written English
- Ideally, experience in Partition Engines, Operating Systems, Continuous Integration and Deployment
- Self-motivation and ability/willingness to work in an international and interdisciplinary team

What we offer:

- A full-time position with remuneration in line with the current German public service (TVL-E13).
- Possibility of carrying out PhD studies while working on the project. As a PhD student of the TUM you will automatically be a member of the TUM Graduate School and as such can profit from extensive training programs, have access to funding for foreign research travels and certain consulting and advisory services.

TUM strives to increase the proportion of their female employees, and therefore explicitly invite women

to apply. Severely handicapped persons will be given preferential treatment if their aptitude and qualifications are essentially equal to those of other applicants.

Applicants should submit a short cover letter and a CV in PDF format only, with file name "<*surname*>*_IL_cover*", copied also into the subject field of the mail, and "<*surname*>*_IL_CV*" electronically to: **buecherl@tum.de**

Desired start date: As soon as possible

Deadline for application: applications will be considered until the position is filled.

Technische Universität München
Robotics and Embedded Systems