



BOSCH

Master thesis Development of reliable real world driving models from field data

Robert-Bosch-Campus 1, 71272 Renningen, Germany

Full-time

Legal Entity: Robert Bosch GmbH

Company Description

At Bosch, we shape the future by inventing high-quality technologies and services that spark enthusiasm and enrich people's lives. Our promise to our associates is rock-solid: we grow together, we enjoy our work, and we inspire each other. Join in and feel the difference.

The Robert Bosch GmbH is looking forward to your application!

Job Description

For new powertrain systems there is a lack of realistic field data. Our approach is to generate virtual load data where one of the core components is velocity simulation on virtual roads. The generated velocity time series depend on many external factors such as road properties, driver behavior and vehicle model. The parameters describing these external factors are often not exactly known and must be estimated or they are inherently random. To consider these influences in the simulations they must be described by statistical models. Large field data sets including traffic, map and telemetry data form the basis for these models.

- During your assignment you will work with a velocity simulation tool.
- You will analyze large field data sets to better understand the stochastic nature of driving.
- Furthermore, you will integrate your findings into the velocity simulation to generate more reliable driving profiles.
- Last but not least, you will work in an agile and diverse research team.

Qualifications

- **Education:** Master studies in the field of Engineering, Mathematics, Physics or Computer Science
- **Personality and Working Practice:** highly motivated and flexible team player
- **Experience and Knowledge:** Python programming, knowledge of statistical models is a plus
- **Languages:** fluent in German and English

Additional Information

Start: according to prior agreement

Duration: 6 months

Requirement for this thesis is the enrollment at university. Please attach a motivation letter, your CV, transcript of records, examination regulations and if indicated a valid work and residence permit.

Diversity and inclusion are not just trends for us but are firmly anchored in our corporate culture. Therefore, we welcome all applications, regardless of gender, age, disability, religion, ethnic origin or sexual identity.

Need further information about the job?

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