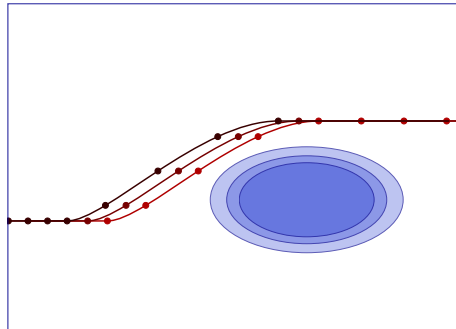# Enhancement of a Motion Planner for Autonomous Vehicles

In cooperation with the Audi AG, the fortiss GmbH (An-Institut of the Technical University of Munich) develops new trajectory planning approaches for autonomous vehicles. In order to solve challenging problems, a wide range of planning methods are applied – spanning from search- to optimization-based methods. These have shown to work well, however, need to be developed further in order to handle a wider variety of situations.

Within the scope of this thesis, a new planning method capable of handling a wide variety of situations that arise in traffic will be developed. As a starting point, a basic simulation environment is provided in order to implement and evaluate the newly developed method. Problems that are to be solved range from automated parking applications to highly automated driving in inner cities.

For further information, feel free to contact me.

Requirements

- Solid programming skills in C++
- Good knowledge Python
- Good knowledge in probability and optimization theory
- Able to work independently

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Research area:

Trajectory Planning, Decision Making, Optimization

Programming language:

C++, Python

Language:

English

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