Master Thesis
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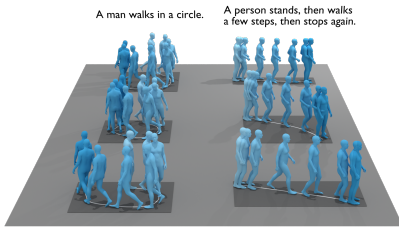

Figure 1: Text-based pose generation. [Petrovich et al.]

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Rel. Resources

Related Reference: Petrovich et al. TEMOS: Generating Diverse Human Motion from Textual Descriptions, 2022

Trajectory-conditioned Pose Generation in AD Scenarios

Description

- The Intelligent Vehicles (IV)-Lab is looking for a **master student** to support research in the field of autonomous driving.

- Further information you find here: **iv.ee.hm.edu**

Your Project

- Research on the topic of pose generation and conditioned pose generation (see Figure 1).

- Adapt an existing method (e.g., TEMOS) to the field of autonomous driving.

- Implement a conditioning on given trajectories for your pose generator to generate realistic poses for autonomous driving scenarios.

- The first step should include pedestrians and a possible extension is to include cyclists.

- Apply your method as data augmentation to a real-world dataset and show the effects on the training of a trajectory prediction method.

Your Profile

- Willingness to learn and interest in the topic of autonomous driving

- Ability to work independently, conscientiously, and accurately

- Previous experience with Python is required

- Previous experiences with Linux, Bash, and git are a plus

What we offer

- Access to high-end GPU cluster for training

- Access to workstation with GPU for development

- Supervision and close cooperation with PhD candidate

Does this appeal to you? Are you interested in the field of autonomous driving? Then reach out to us via mail and send a short introduction, your current grade report, and a cv with a photo.