

Perception Software Engineer

Zurich, Switzerland

Embotech is an award-winning software scale-up developing cutting-edge autonomous driving technology and solutions for autonomous vehicles, with a focus on private ground applications such as trucks at port terminals and passenger cars in factories. We are delivering safe autonomous transportation by leveraging physical AI.

We are looking for a highly skilled and motivated Perception Software Engineer to join the Perception team and play an important role in developing full-stack L4 autonomous driving systems for private grounds, using elements from Embotech's core autonomous driving technology and from external suppliers. Your role will involve designing, developing and testing perception software and systems for safe autonomous vehicles in Automated Terminal Tractor and Automated Vehicle Marshalling applications. This includes existing customer deployments where hundreds of cars and a fleet of trucks drive daily in factories and ports as well as new proofs of concept and new customer deployment projects.

We offer an exciting role in a fast-growing company with attractive conditions and flexible hours. Embotech develops innovative products in a modern and dynamic environment, and you can expect an international atmosphere, with highly skilled colleagues with a passion for excellence and efficiency. We are looking for highly motivated people to help us solve one of the most complex challenges of today and take our company to the next level.

Responsibilities:

- Design, develop and optimise perception algorithms for L4 autonomous driving on private grounds.
- Extend our real-driving training dataset, improve the ML pipeline, train existing and new models.
- Test the perception stack in simulation and real-life test setups with our own test vehicles.
- Document code, designs and test results concisely.
- Cooperate with systems engineers, software engineers and controls engineers to deliver a well-integrated full autonomous driving stack.
- Perform reviews of requirements, test specifications and code.
- Stay current with the latest advancements in the field to continuously improve and adapt perception systems.
- Occasionally travel to customers or our own test sites.

Requirements:

- MSc in robotics, mechanical/electrical engineering or computer science.
- Sound knowledge of and applied experience with classical algorithms and modern learning-based computer vision.
- Demonstrated experience with LiDAR and camera sensor technologies.
- Ability to write and review production-level code in modern C++ and prototype in Python.
- Any of the following is a plus:
 - System architecture
 - High-performance real-time systems
 - PyTorch, MLflow, ONNX, CUDA, PCL, OpenCV, Rust, Docker, CI/CD
 - Foundation models, VLA models
 - Autonomous vehicle safety standards
 - 3+ years of experience in a similar role
- Passion for autonomous driving, a self-driven attitude, strong team spirit and a hands-on mentality.
- Fluency in spoken and written English.

Our preferred starting time for this position is **ASAP**.

We look forward to receiving your application documents (CV, cover letter & reference letters) by email:

careers@embotech.com

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