

# Jun Meng

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Passionate AI/CV engineer with a strong background in ADAS/AD. Skilled in Python, TensorFlow, PyTorch, and various ML libraries. Excellent problem-solving, research, and collaboration abilities. # OPENTOWORK: I'm seeking for a challenging role as Junior Software Developer in general Automotive Engineering field.

## Education

### Technical University of Munich

M.Sc. in Automotive Engineering, Grade 2.3

M.Sc. in Mechatronics and Robotics, Grade 2.3

Munich, DE

10/2020 – 06/2024

04/2023 – Present

### South China University of Technology

B.Eng. in Vehicle Engineering, Grade 3.78/4.0 (best 5%)

Guangzhou, CN

09/2015 – 06/2019

## Projects

### Mamba-based 3D Object Detection with Object Relation

12/2023 – 06/2024

Master's thesis, School of CIT, TUM

Python, PyTorch, GNN, 3D Object Detection

- A context-dependent LiDAR based 3D object detector with GNN-based object relation module;
- 40% lower FLOPs achieved by Mamba-based feature encoder in 2D backbone;
- Experiments conducted on KITTI and Waymo datasets.

### Autonomous Driving Simulator and Benchmark on NRP

06/2022 – 12/2022

Semester thesis, School of CIT, TUM

Python, ROS2, OpenCV, Stereo Depth Estimation

- AD simulator development basing on Neuro-Robotics Platform;
- Implement YOLOv5 for 2D object detection and SGBM for stereo depth estimation; Pipeline developed with ROS2.

## Experiences

### Intern Driver Assistance System

03/2023 – 08/2023

🚗 Porsche Engineering Group GmbH

Mönsheim, DE

- Software development of the Highway Pilot function;
- Sensor data (FlexRay format) processing; Labeling tool developing and dataset establishing for collision prediction;
- ML-based classifier training and result visualization.

### HiWi: ROS Developer

10/2022 – 02/2023

🚗 ENSNARE TUM

Munich, DE

- UAV localization for automated construction project;
- AprilTag detection and tracking with BASLER camera; Pipeline developed with ROS.

### Formula Student Germany: SLAM Developer

10/2022 – 02/2023

🚗 TUfase e.V.

Garching bei München, DE

- State estimation with EKF; Parameter configuration for fastSLAM algorithm.

### Formula Student China: Leader Aerodynamics

11/2017 – 06/2019

🚗 SCUT-Racing

Guangzhou, CN

- CAD design and CFD simulation for Aero-Kits; Manufacturing with CFK; Track testing and data analysis;
- Team management, financial management for the subteam.

## Skills

📄 **Programming:** Python, C/C++, ROS/ROS2, MATLAB/Simulink, CUDA, Git, Docker, Linux OS

⚙️ **CAD & CAE:** AutoCAD, CATIA, SolidWorks, Blender, ANSYS, StarCCM+

🗣️ **Languages:** Chinese (Native) | English (Business-fluent) | German (Business-fluent)

🚗 **Driver's License:** Klasse B (DE)