Jun Meng

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Education

10/2020 – Present **Technical University of Munich** — Munich, Germany

M.Sc., Automotive Engineering

Interested fields: Autonomous driving, ADAS and modern control theory.

Note: 2,7 so far

10/2019 – 10/2020 **Gap year: German learning** — Dortmund, Germany

09/2015 – 06/2019 South China University of Technology — Guangzhou, China

B.Eng., Vehicle Engineering

Interested fields: mechanical engineering, vehicle design and vehicle dynamics.

GPA: 3.78/4.0; Ranking: best 5%

Languages Software and Programming Skills

English: CET6 (B2) Python, C/C++, ROS, ROS2, MATLAB, Simulink, Git

German: C1 CATIA V5, Auto CAD, Solidworks

Chinese: native Microsoft Office

Driver's License Hobbies

Klasse B (German) Handcraft, Photographing, Hiking, Karting driving

Internship

03/2023 – present Porsche Engineering Group GmbH

Internship Driver Assistance System

Software development of planning module of highway pilot.

• Collision check algorithm, developed with C++;

• Relative object filter and trajectory display, developed with Python.

Project Experience

Technical University of Munich

08/2022 – 12/2022 Semester Thesis: Autonomous Driving Simulator and Benchmark on NRP

https://github.com/junmeng6025/ros2_kitti

• Develop the AD simulator basing on Neuro-Robotics Platform;

• Implement YOLOv5 and SGBM algorithm in ROS2 galactic.

10/2022 – 02/2023 Student assistance at ENSNARE TUM: Member of Subteam UAV

• Ground camera setup, using industrial camera BASLER;

• AprilTag detection, pose acquisition via ROS noetic.

10/2022 - 02/2023

Formula Student: Member of Subteam Autonomous Software, TUfast e.V.

Work on state estimation and mapping. Detect positions of cones in global map and locate the vehicle in it. Configure the parameters of fastSLAM algorithm to improve the performance.

09/2022 - 10/2022

Teaching Assistant: [MW0450] Industrial Software Development for Engineers / C++

Duties included teaching tutorials, check submitted code, cross compile and test on the hardware.

03/2022

Practical course: [MW0447] Simulation technology

- Design of a sorting system and a material filling system.
- Create physical models in Simulink and simulate process control using Stateflow charts.

South China University of Technology

12/2018 - 05/2019

Bachelor's thesis: Design and Testing of FSAE-Racecar Aerodynamic Kits

Based on the design of the combustion racecar in the season 2018, carried out track testing to verify the actual aerodynamic effect compared to the CFD simulation results. Used linear displacement sensors to collect raw data of suspension displacements of every single wheel. Used Race Studio to process and analyze the test data.

11/2017 - 06/2019

Formula Student China: Leader of Aerodynamic & Chassis, SCUT Racing

Designed and manufactured Aero-kits to produce downforce efficiently for a single-seat open-wheel FSAE-racecar. Using CATIA V5 for 3D modeling and StarCCM for CFD simulation.

Worked for the seasons of 2017, 2018, and 2019. Participated in Formula Student China 2017, responsible for the Design Presentation of our combustion racecar's aerodynamics and ergonomics.

Awards

03/201/	Second-class Scholarship SCU I
11/2017	Third prize (as a member) of Formula Student China 2017
03/2018	GAC Enterprise Scholarship
04/2018	Finishing Award of Chinese University Students Mathematical Modeling Competition
12/2018	Third-class Scholarship SCUT
06/2019	Excellent Bachelor Thesis 2019, School of Mechanical and Vehicle Engineering, SCUT