He Tai

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Education

Dresden University of Technology — Dresden, Germany
Automation, Measurement and Control — *10.2012 – 04.2017*

Technical University Dresden Institute of Advanced Studies — Dresden, Germany
German Language — *08.2011 – 02.2012*

Xidian University — Xian, China
Electronic Information Science and Technology — *09.2007 – 06.2011*

Work Experience

Momenta Europe GmbH — Stuttgart Region, Germany
Senior System Integration Engineer — *11.2021 – 12.2024*

- **Integrated** and **optimized** software architecture for real-time **QNX/Linux** systems.
- Developed a comprehensive **toolchain** for data tagging, monitoring, and mining for data collection campaigns in the EU and US/Canada.
- Enhanced **ADAS** functions to meet EU regulations, such as **E-NCAP**.
- Developed and adapted **L4 software functions** to comply with German traffic rules, including right of way, traffic signs, and roundabouts.

Elektronische Fahrwerksysteme GmbH — Ingolstadt, Germany
Software Developer — *01.2019 – 10.2021*

- Contributed to the Audi Customer project: **Automated Valet Parking (AVP)** (SAE Level-4).
- Developed series software components for **trajectory planning**.
- Implemented algorithms and tests for trajectory planning using **C++/CUDA**.
- **Optimized CUDA** code for enhanced runtime and compilation efficiency.

Elektronische Fahrwerksysteme GmbH — Ingolstadt, Germany
ADAS Function Developer — *07.2017 – 12.2018*

- Worked on the Audi Customer project: **Adaptive Cruise Assist (ACA)** (SAE Level-2).
- Implemented software prototype components for situation interpretation using **C++**.
- Specified requirements from ACA to long and short-range radar in **DOORS**.
- Conducted scenario-based assessments to determine the necessity of each sensor.
- Performed road tests and validated implementations in **ADTF**.

Volkswagen Group Research — Wolfsburg, Germany
Master Thesis — *06.2016 – 04.2017*

- Analyzed cut-in scenarios in dense traffic to develop and adapt assistance functions.
- Compared data from **LiDAR** and **Radar** sensors.
- Implemented algorithms to detect cut-ins in dense traffic using **C++**.
- Tested and validated implementations with measured data in Shanghai.

Audi China — Beijing, China
Intern — *10.2015 – 04.2016*

- Analysis of drivers' behavior in China and in Germany
- Research and classification of driving scenarios
- Preparation and execution **ACC** road testing in Shanghai
- Support China-specific ACC application and verification

Skills

Programming: C/C++ (Intermediate), Python (Basic), Shell (Basic), Matlab/Simulink (Basic)

Tools and Frameworks: Git, Github, Azure DevOps, ADTF, ROS, CANoe, CANape, CUDA, Momenta CLA

Requirement Management: DOORS (Basic), Rhapsody (Basic), Lark(Feishu)

Languages: Chinese (Native), English (Professional), German (Professional)