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Hongguang Chen

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Experienced software engineer specialized in autonomous driving systems integration. Skilled in sensor module design, and automated testing. Dedicated to tackling complex challenges and advancing cutting-edge technology.

Education

MS **Chalmers University of Technology**, High Performance Computation — Sept. 2023 to June 2025
BS **South China Normal University**, Telecommunication Engineering — Sept. 2015 to July 2019

Experience

Inceptio, Software Engineer

Shanghai, China
April 2021 to June. 2023
2 years 2 months

Autonomous Driving System Integration and Development. (**Linux, C++, DDS/ROS, Sensors**).

- Main developer of the IPM (Autonomous Driving Modules Manager).
- Main designer and developer of the universal sensor sub system.
- Main developer of off-vehicle and on-cloud data processing.
- Main contributor of the auto-testing system. (**Python, Shell Script**).

Sensetime, Researcher

Shanghai, China
Dec. 2019 to April 2021
1 years 6 months

General AI and AIOT educational platform Development (**C/C++, Python, ROS, PyTorch**)

- Main designer and developer of a self-driving demo platform for education.
- Main developer of the Open-source hardware with AI platform.
- Main contributor of user guidance documents and various example cases.

Sensetime, Researcher Intern

Shenzhen, China
Oct. 2018 to May 2019
8 months

- Implemented an end-to-end self-driving demo with method from NVidia. (**Python**)
- Contributed to the Driver Monitoring System (DMS), focusing on module performance and pruning.

Projects

JLC, A self defined Language — 2024

- Developed a toy-level programming language and compiler incorporating features from C and Java, such as "Struct", "Array" and "Class", which the ability to compile to LLVM or X86 assembly. (**C++**)

A Real-time Smoke simulator — 2024

- Implemented a real-time smoke and cloud simulator using gird-based methods and ray-tracing rendering, implemented with CUDA and OpenGL.(**C++**)

A 3D physics-based particle simulator — 2021

- Implemented a CPU-based 3D version particle simulation system, supporting cloth, solid, and sand material, based on NVIDIA's "Unified-particles" paper. (**C++**)

Language

Chinese Mandarin: Native **Chinese Cantonese:** Native **English:** B2