Hailong Gong

ACT 2602, Australia

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Education

The Australian National Unversity — *ACT, Australia*

Master of Computing — *Feb. 2024 - Dec. 2025 (Expected)*

- Specialization: Artificial Intelligence

Beijing Institute of Technology — *Beijing, China*

Bachelor of Computer Science and Technology — *Sep. 2018 - Jun. 2022*

- Courses: Computer Vision, Artificial intelligence, Discrete Mathematics, Combinatorics, Probability-and-Statistics, Object-oriented programming, Computer Networks, Relational Database, Compiler Principle, Software Engineering.

Work Experience

Shenzhen Image Technology Co., Ltd — *Shenzhen, China*

Computer Vision Algorithm Engineer — *Mar. 2023 - Dec. 2023*

- Designed and optimized algorithms for Automatic Optical Inspection (AOI) System in order to detect defects in PCB boards.

Beijing Institute of Technology — *Beijing, China*

Research Assistant — *Jul. 2022 - Jan. 2023*

- Researched on trajectory prediction of autonomous driving and decision-making for connected-and-automated vehicles.

ByteDance, Quality Lab — *Beijing, China*

Algorithm Engineer Intern — *Oct. 2021 - Feb. 2022*

- Optimized reinforcement learning algorithms of client automation test tool, solving the pain points during software testing.
- Improved the efficiency and quality of automated testing tools, including test coverage, and problem interception rate.

Academic Projects

Multi-Source Sensor Fusion-based Trajectory Prediction — *Beijing, China*

Instructor: Professor Gong Jianwei, Associate Professor Chao Lu — *May. 2022 - Jan. 2023*

- Worked as a research assistant and proposed an interactive scenarios trajectory prediction model based on multi-stream heterogeneous data fusion to improve accuracy.

Research on the Algorithm for the Safe Autonomy — *Northeastern University, USA (Remote)*

Instructor: Assistant Professor Lili Su — *Jul. 2021 - Sep. 2021*

- Researched the efficient algorithm to accurately and quickly detect abnormal human driving mode switches with formal assurance and improved trajectory prediction by effectively fusing the run-time information shared by surrounding autonomous vehicles.

Design of Car Perception System for Formula Driverless Vehicle — *Beijing, China*

Project Leader; Instructor: Associate Researcher, Jie Cao, BIT — *Nov. 2020 - Jun. 2021*

- Proposed a fast, accurate, and large-scale perception system of a formula student driverless car, including object detection, point cloud segmentation, and point cloud cluster.

Skills

Languages	C++, Python, Java, Golang, R, HTML, CSS
Tools for AI	Pytorch, OpenCV
Other technologies	Linux, Git, ROS, QT, MFC

Honors

2020	**Champion**, Formula Student Autonomous China (FSAC), Nation Level	*China*
2021	**1st Prize**, ByteDance Summer Camp	*Beijing, China*
2021	**1st Prize**, "Century Cup" Extracurricular Academic Competition, School Level	*Beijing, China*
2022	**Excellent Oral Presentation** , 2022 6th International Conference on Robotics and Machine Vision	*Xiamen, China*
2012	**2nd Class Scholarship**, Beijing Institute of Technology	*Beijing, China*
2019	**3nd Class Scholarship**, Beijing Institute of Technology	*Beijing, China*
2020	**3nd Prize**, 17th "Century Cup" Competition, City Level	*Beijing, China*
2021	**3nd Prize**, "Century Cup" Extracurricular Academic Competition, School Level	*Beijing, China*