# Hailong **Gong**

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## **Edu**cation

**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.

## **Wor**k 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.

## **Aca**demic 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.

## **Ski**lls

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

## **Hon**ors

| | | |
|---|---|---|
| 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* |