

# Qingshan Hou



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## 🎓 Education

**Tongji University** Sep.2022 – Jun.2026

Computer Science and Technology    Undergraduate    Shanghai, China

- GPA: 4.42/5
- Coursework: Linear Algebra · Assembly Language Programming · Software Engineering · Artificial Intelligence · Data Structures · Algorithms · Object-Oriented Programming · Operating Systems · Principles of Computer Organization · Computer Networks
- Class Monitor: Class of 2022, Computer Science and Technology 2nd Cohort

**National University of Singapore** Aug.2025 – Dec.2025

Dept of Computer Science    Exchange Student    Singapore

## 💼 Internship

**Hundsun Technologies Inc.** Jul.2024 – Aug.2024

FinTech Intern    Hangzhou, China

- Led a team of 6 members as product manager to design and develop a conceptual fund trading system.
- Gained hands-on experience in financial technology, including subscription, redemption, and clearing processes, as well as full-stack development using Vue.js for the front-end, Spring Boot for the back-end, and MySQL for database management.
- Certified Junior FinTech Engineer, Hundsun Technologies Inc. (Awarded for outstanding performance in financial technology project development).
- Recognized with the "Best Quality Award" for leading the development of the fund trading system.

## 🔧 Research and Practical Experience

**Research Assistant: Multi-Agent Spatio-temporal Coordination** Feb.2025 – Present

Embodied AI    Multi-Agent Systems    Tongji University

- Conducting research on multi-agent spatiotemporal coordination problems in the context of embodied intelligence, focusing on collaborative perception, task planning, and motion

synchronization.

- Exploring strategies for communication and policy learning among agents to enable robust cooperation for perception and prediction.
- The project also aims to enhance the generalization capability of embodied agents across diverse domestic scenarios(such as autonomous driving).

## Multi-Objective Optimization of GFlowNet with Game-Theoretic Strategies

Feb.2025 – Present

Flow Network    Game Theory

Tongji University

- Conducting research on extending the original GFlowNet framework from single-objective to multi-objective optimization, integrating objectives such as reward, cost, and diversity.
- Designed a new objective formulation incorporating additional evaluation metrics, and applied evolutionary game theory concepts to model the trade-offs and dynamic policy updates.
- Implemented and validated the extended model on molecular datasets, demonstrating improved sample cost and reward performance over the original baseline.






## Project: Intelligent Car Based Online Calibration System Apr.2024 – Jun.2024

Computer Vision    Internet of Vehicles

Tongji University

- Developed an online calibration system using an intelligent car, replacing traditional static object-based calibration. This improved efficiency and reduced labor requirements.
- Utilized YOLO v9 for computer vision-based calibration and built a basic model of the intelligent car for autonomous movement and calibration.
- Enhanced calibration efficiency by automating the process with a self-moving car and reduced manual intervention and improved system accuracy.
- Won the Silver Medal at the 2024 China International College Students Innovation Competition (Tongji University Internal Competition).

## Honors and Awards

- Tongji University Undergraduate Excellence Scholarship  Nov.2023
- Certified Junior FinTech Engineer, Hundsun Technologies Inc.  Aug.2024
- First Prize: 35th Shanghai Youth Science&Technology Innovation Competition  Apr.2020
- Third Prize: 2021 National High School Biology Olympiad  Sep.2021
- Silver Award: 2024 China International College Students Innovation Competition (Tongji University Internal Competition)  Jun.2024
- President, Jiading Campus Basketball Association Jun.2024 - Present





## Skills

- Programming Language: C++ > Python > JavaScript

- English Proficiency
  - IELTS: Overall band 7.5 (with all sections above 7.0)
  - CET4: 634
  - CET6: 584

## **i Others**

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- Activities:
  - UFI Filters Group/Sofima Automotive Filter Asia-Pacific Headquarters Plant Tour 
  - Performing a cappella at the Earth Hour event. 
  - Mercedes-Benz 2025 Shanghai International Auto Show Youth Talent Day 
- Interests:
  - Certified National Level-3 Basketball Referee
  - Music band lead singer 
  - A cappella Tenor