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

AI for Science research in Blue Whale Lab

💼 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 Assitant: 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 Universiy

- 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
- 《Large Model + X General Education Summer Camp》Artificial Intelligence and Large Model Development 🔗   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

ⓘ Others

- 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