

EDUCATION

- **Tsinghua University** Aug. 2018 – Jun. 2022
B.E., Department of Automation, School of Information Science and Technology Beijing, China
 - **GPA:** 3.68/4.0;
 - **Ranking:** 69/190 (Top 36%);
 - **Relevant Coursework:** Operations Research (A), Digital Image Processing (A), Automatic Control Theory (A);
- **The Hong Kong University of Science and Technology** Aug. 2022 – Present
Ph.D. Candidate, Artificial Intelligence Thrust Guangzhou, China
 - **Coursework:** Completed all required courses;
 - **Supervisors:** Prof. Hui Xiong, Asst. Prof. Ying Sun;
 - **Research Interests:** Reinforcement Learning, Multimodal Representation Learning, Robot Control, Embodied Intelligence.

AWARDS

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| CAST Young Science and Technology Talent Development Program – Doctoral Student Track | 2025 |
| Comprehensive Excellence Scholarship, Tsinghua University | 2020 |

FIRST-AUTHOR PUBLICATIONS

- **Interactive Interior Design Recommendation via Coarse-to-fine Multimodal Reinforcement Learning** ACM MM 2023
First Author
 - Developed an Interactive Interior Design Recommendation System (IIDRS) that learns latent user preferences through reinforcement learning. Designed the coarse-to-fine DecorRCFN policy and an object-aware feedback generator, improving accuracy and user satisfaction in multi-turn interactions.
- **Efficient Skill Discovery via Regret-Aware Optimization** ICML 2025
First Author
 - Formulated unsupervised skill discovery as a min-max game between skill generation and policy learning. Developed a regret-aware optimization method that directs exploration toward skills with greater policy-improvement potential, achieving a 15% zero-shot improvement in high-dimensional environments.
- **GoldenStart: Q-Guided Priors and Entropy Control for Distilling Flow Policies** ICLR 2026
First Author
 - Developed GoldenStart (GSFlow) to reduce flow-policy inference latency and improve online exploration. Combined a conditional-VAE Q-guided prior with explicit entropy control, yielding an efficient continuous-control policy.
- **Source-Lifted Flow Matching for Intervenable Multimodal Imitation** Under Review
First Author
 - Proposed Source-Lifted Flow Matching (SL-FM), which turns source randomness into an explicit control handle while retaining a shared velocity field. Orthogonal Source Lifting and a state-dependent source mixture avoid path-crossing ambiguity, changing future routes in 91.1% of matched-prefix interventions.

CO-AUTHORED PUBLICATIONS

- **A Brain-inspired Embodied Intelligence for Fluid and Fast Reflexive Robotics Control** Under Review
Second Author
 - Proposed **NeuroVLA**, a brain-inspired vision-language-action framework modeled after the cortex, cerebellum, and spinal cord for stable, reflexive robot control.
 - Implemented hierarchical planning, motion stabilization, and low-latency execution; achieved the first real-robot neuromorphic VLA deployment at 0.4 W with safety reflexes within 20 ms.

PROFESSIONAL EXPERIENCE

- **AI² Robotics** May 2025 – Present
Algorithm Engineer Shenzhen, China
 - Developed and pretrained large-scale vision-language-action (VLA) models and deployed them on humanoid robots.
 - Led frontier research on integrating VLA models with reinforcement learning (VLA+RL) and managed the open-source release platform.
 - Contributed to the development of robot data-collection standards.
- **Shanghai Artificial Intelligence Laboratory** Jun. 2024 – Apr. 2025
Algorithm Intern, Embodied AI Center (Continual Learning Group) Shanghai, China
 - Among the first to deploy VLA models on robotic arms and pretrained a value function for VLA-RL.
 - Improved lifelong reinforcement learning and unsupervised skill discovery through prioritized skill replay, increasing training efficiency and exploration diversity in high-dimensional environments.
- **OPPO** Oct. 2022 – Dec. 2023
Algorithm Intern, Multimodal Algorithms Shenzhen, China
 - Developed a multimodal interactive recommendation system for interior design, implementing and evaluating a reinforcement-learning-based algorithm for multi-turn, multimodal recommendation.
- **Microsoft Research Asia (MSRA)** Jul. 2022 – Sep. 2023
Remote Research Intern Remote
 - Contributed to blockchain application development for a Microsoft Edge browser extension.
 - Conducted research at the intersection of decentralized finance (DeFi) security and machine learning.
- **Xiaomi Corporation** Jun. 2021 – Aug. 2021
Algorithm Intern, Internet Business Department Beijing, China
 - Developed overseas advertising CTR models, including DeepCrossing, Wide&Deep, and DIN, with statistical features and Bayesian-smoothed inputs.
 - Deployed the optimized model to a Singapore cluster, improving AUC from 0.72 to 0.78.

SELECTED PROJECTS

- **AlphaBrain Platform: Open-Source Embodied Intelligence Framework** Apr. 2026 – Present
Core Contributor, Open-Source Development GitHub
 - Unified VLA architectures, world models, continual learning, and reinforcement learning behind shared training, configuration, and inference interfaces; made 43 public commits, ranking first by commit count.
 - Developed RLT/RLT_a, PPO/GRPO trainers, and Qwen/ $\pi_{0.5}$ integrations for full-parameter VLA fine-tuning and online reinforcement learning.
 - Refactored LIBERO evaluation and distributed execution, and improved configuration, documentation, and release workflows for reproducibility.
- **Low-Light Scene Object Detection** Bachelor's Thesis
Tsinghua University Beijing, China
 - Developed low-light object detection for autonomous driving using De-DETR, multimodal and ensemble spectral features, and learnable fusion of pre- and post-processed results, improving accuracy in mixed-light scenes.
- **Smart Cane System** SRT (Student Research Training) Program
Tsinghua University Beijing, China
 - Built a smart cane with monocular obstacle and crosswalk detection plus SLAM-based 3D mapping; developed the vision and pose-estimation modules, winning a Challenge Cup award.

PROGRAMMING SKILLS

- **Programming Languages:** Python, MATLAB, JAX **Frameworks:** PyTorch