# TINA XU

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## EDUCATION

**MS in Computer Science** Aug 2025 – May 2027(expected)
- University of Illinois Urbana-Champaign Urbana, IL
  Related courses: Mobile Robotics, Database System

**BS in Electrical Engineering, Mechanical Engineering (Double major)** Sep 2021 – Jun 2025
- Xi'an Jiaotong University, GPA: 3.90/4.0 in Honors Engineering Program Xi'an, China
  Related courses: Program Design Method; Computer Network Theory; Data Science; Artificial Intelligence
- Study Abroad to University of California, Berkeley in Fall 2023 Berkeley, CA
  Related Courses: Mechatronics Design; Introduction to Embedded Systems; Advanced Control Systems

## RELATED EXPERIENCE

**SIGRobotics, University of Illinois** Champaign, IL
*Project Member in Earth Rover Open-Sourcing with HuggingFace & FrodoBots* Sep 2025 – Present
- Developing **networking pipeline** and **Python APIs** for remote **EarthRover Mini** control and sensor streaming.
- Designing action–observation interfaces for **policy training and evaluation** within HuggingFace's LeRobot framework.
- Contributing open-source code in collaboration with **FrodoBots, HuggingFace** and universities like NUS, NYU.

**National University of Singapore** Singapore
*Research Intern in Robot Learning with Dr. David Hsu* academic poster Jul 2024 – Apr 2025
- Developed **object-centric imitation learning models** for robotic manipulation (Fetch robot).
- Conducted **ablation studies & benchmarking** to evaluate policy learning design choices.
- Advanced **3D representation learning** with RLBench to improve generalization across views/objects.
- Presented work as an **academic poster at Eastern European Machine Learning Summer School (EEML 2025)**.

**Xi'an Jiaotong University** Xi'an, China
*Research Assistant in Machining Learning with Dr. Xiang Li* published paper Nov 2022 – May 2024
- Applied **event cameras** and **PointNet++** for machine fault diagnosis with point cloud representations.
- Built novel **geometric data structure** for event streams; achieved robust classification under variables.
- Published at **2024 IEEE Global Reliability & PHM Conference**.

**University of California, Berkeley** Berkeley, CA
*Project Participant in Embedded & Cyber-Physical Systems Course* Fall 2023
- Awarded **Second Prize** in Mobile Robot Design Social Impact competition.
- Programmed **embedded C++** systems on Raspberry Pi for Bluetooth-based motion control in Linux.
- Designed and implemented **localization and control algorithms** with gyroscopes, motors, and color sensors.
- Achieved adaptive path following, line tracking, obstacle avoidance using a **finite state machine**.

## OTHER EXPERIENCE

**Siebel School of Computing & Data Science, University of Illinois** Champaign, IL
*Graduate Teaching Assistant for Data Science Discovery* Aug 2025 – Present
- Lead weekly Python labs for data analysis, visualization and machine learning for up to 60 students.
- Grade assignments and provide constructive feedback via Canvas.
- Collaborate with professors to design lesson plans, lab materials, and assignments.

## ACTIVITIES & LEADERSHIP

- **Best Research Paper Award**, EEML 2025 – Sarajevo, Bosnia and Herzegovina Jul 2025
- **Best Paper Prize,** IEEE 2024 Global Reliability & PHM Conference Sep 2024
- National University Intelligent **Robotics Contest 1st Prize**, Shaanxi, China Aug 2024
- **Leader** of the Hsue-shen Tsien Academic Study Assistance Group Aug 2022 – Aug 2023

## SKILLS

- **Programming:** Python, C/C++, MATLAB, SQL
- **Frameworks & Tools:** ROS, PyTorch, TensorFlow, OpenCV, Solidworks, Gazebo, Rviz, Git, LaTeX
- **Hardware:** Arduino, Raspberry Pi, Nvidia Jetson
- **OS:** Linux