

Zixuan (Helen) Liu

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INTERNSHIPS / PAID WORK / RESEARCH

Automation Solutions Integrator, Project Manager/Founder Dec 2025 - Present

Gratek Inc., paid position

- Head hardware-software integration into Fortune 500 clients' facilities
- Manage global supply chain expansion & logistics
- Oversee quality control and hardware maintenance operations

AI Image Detection: Defects on Circuit Boards, Project Lead Jun 2024 - Mar 2025

LongChang Circuit Technology Co., LTD

- Created image detection software tailored to identify defects and false-positives in the boards' AVI scans
- Utilized in real-time circuit board production during final quality checks
- Improved the quality department's system of processes (SOPs)

Robotics Team Mentor & Global Coach Trainer, International Team/Coach Mentor Nov 2023 - Aug 2025

Magikid Robotics Lab Headquarters, paid position

- Guided 10+ teams to become the 2023-2024 World Champion, MS World Championship Finalist, World Top 10 Skills Ranks, 3 Division Champions, and various Judge awards
- Managed curriculums, organized feedback interviews, and coordinated international training events

NASA's JPL/Caltech Research Projects, Researcher Jun 2022 - Feb 2023

Jet Propulsion Laboratory & Caltech Cahill Astrophysics & Astronomy Laboratory

- Researched viable exoplanet classification systems using ensemble model & feature engineering
- Managed R&D of realistic simulations of moon base construction & robotic systems

EXPERIENCES / PROJECTS

VEX AI Robotics R&D, *Quality Assurance Member* Dec 2024 - May 2026

- Tested and evaluated sensors, GPUs, and power units for AI-driven robotics applications
- Documented failure modes and performance benchmarks, identifying root causes of system disturbances
- Provided feedback loop to R&D team for curriculum development and component selection

Stanford 2025 BEHAVIOR Challenge, *Founding Team Member* Nov 2025 - Dec 2025

- Ranked 18th on leaderboard for the embodied AI challenge testing robotic agents in household settings
- Led decisions on development of Action Chunking with Transformers model and dataset modality usage

Aeroponic Cultivation System Prototype, *Project Lead w/Dr. Jonathan H. Jiang* Nov 2021 - Sep 2022

- Modeled and built a detailed, foldable aeroponics hardware & UI prototype for space cultivation
- Developed soil-free cultivation techniques for zero-gravity environments approved by NASA astronauts

EDUCATION

University of Texas at Austin, School of Computing Spring 2028

Accelerated Bachelors of Science in Informatics (Concentration: Human Centered Data Science)

- **GPA:** 4.0 College GPA (*Updated as of Jul 2026*)

ADDITIONAL INFORMATION

Certification: AWS Math for Machine Learning, AWS The Elements of Data Science, Machine Learning for Leaders, Kaggle Python Certification, Inside LVMH Certification

Awards/Honors: 30+ VEX Robotics & VEX AI Champion Titles, NASA Global Winner Space Apps Hackathon - Galactic Impact Award, NASA HQ - Winner's Panel Speaker, Kaggle Expert Tier

Hobbies: Swimming, Waterpolo, Tennis, Learning Spanish & Mandarin, Film, Building with Breadboards