

EDUCATION

• Tompkins High School

Katy, Texas

*Foundation HS Program w/ Endorsements (Arts/Humanities, Business/Industry,
Distinguished Level Achievement, Multidisciplinary Studies, STEM)*

Aug 2022 - May 2026

- Math/CS Courses: AWS Cloud Computing, Data Structures, Unity Game Development, AP Computer Science A, AP Computer Science Principles, Multivariable Calculus, AP Calculus BC, AP Statistics, AP Cybersecurity/Networking

EXPERIENCE

• Intelligent Robotics and Vision Lab, University of Texas at Dallas

Richardson, TX *Researcher* |

<https://labs.utdallas.edu/irvl/people/>

June 2024–Present

- Estimating hand & object poses using multi-camera system at Intelligent Robotics and Vision Lab (IRVL). Implementing MANO for 3D hand shape modeling & HaMeR for hand mesh recovery.
- Researching robot learning and manipulation, including reinforcement learning, VLA models, and NVIDIA Isaac Sim; deploying and evaluating policies on real SO-101 robots.

• ArcGen Programming Academy LLC

Houston, TX *Lead Instructor*

and Program Developer

December 2023 – Present

- Only student out of thousands in academy to advance to an instructor.
- Taught AI and ML, Software engineering and systems design, Data science and data visualization, Internet Technology App Design, Rapid prototyping and application development
- Designed and ran 2-hr workshops on research project pathways, guiding 120+ attendees through Q&A, idea refinement, and tech planning.
- Created lesson plans that combined tech & business, supported ~50 students in forming their own startups

Teacher's Assistant

June 2023 – December 2023

- Guided 350+ students through in-class labs and complex projects, achieving 100% submission rate.
- Held office hours weekly

• NASA Space Apps Co-Local Lead & Organizer

Houston, TX

Lead Instructor and Program Developer

December 2023 – Present

- Organizing annual Houston area NASA International Space Apps Challenge, a global hackathon using NASA's open data.
- Led hosting logistics and built the event website.
- Expanded high-school participation-drawing from my experience as the first HS student locally to win multiple times, encouraging younger students to join. Helped double team count to 40+

• Texas Governor's Science & Technology Champions' Academy Scholar

Dallas, TX

Researcher

July 2025

- Conducted Machine Learning research under SMU Postdoc Dr. Inam Khan on anomaly detection; built a meta-classifier for robotic e-waste grasping & found project topics for peers.

• Selected for High School Discovery – Susquehanna International Group

Virtual

Attendee

May 18, 2026

• Selected for AI Startup School by Y Combinator

San Francisco, CA

Attendee

July 25-26, 2026

- AI Startup School is a free event and hand-picks 2,500 of the top CS undergrads, masters, and PhD candidates in AI to hear from the top AI founders and experts. Travel credit of \$500 was given.

• Selected for HackMIT

Boston, MA

Attendee

Sep 19-20, 2026

- HackMIT hand-picks ~1,000 of the top CS undergrads globally to design and build innovative projects from scratch, and hosts workshops from sponsors, personalized mentorship, and mini events.

• Selected for UCLA AI Hacks

Los Angeles, CA

Attendee

Oct 17-18, 2026

- LA AI Hacks chooses ~500 from thousands of the top CS undergrads globally to collaborate in a 48-hour sprint focused on engineering innovative AI and LLM solutions, during the peak of recruiting season.

SELECTED HONORS

- **ISEF 2025 Grand Award Winner:** 2nd Place, Technology Enhances the Arts sponsored by David Holtz of Midjourney. \$2,400 cash prize (from 22 categories, 1,700+ international finalists, 7M+ Competitors)
- **Texas Science & Engineering Fair** (from 21 categories, 1,200+ state finalists) Awarded a \$2,000 research scholarship at Governor's Champion Science & Technology Academy (GSTCA):
2026 - 1st Place, System Software; 2025 - 3rd Place, System Software.
- **Houston Science & Engineering Fair (2X ISEF Finalist):**
2025, 2026 - Physical Sciences Grand Champion & 1st in System Software (top 15 in 21 categories, 1,300+ district finalists from 23 counties, one of the largest fairs in the US) Additionally awarded 3 special awards (Cybersecurity, SHPE, BABS Foundation), chosen by sponsors.
<https://isef.net/project/teca018-real-time-focused-sign-language-translation-system>
<https://isef.net/project/sftd021-object-centric-learning-for-robot-manipulation>
- **Certificate of Special Congressional Recognition:** Awarded directly by a U.S. Congressman to constituents who earn national recognition or demonstrate outstanding leadership and community impact.
 - I received this recognition after contributing accessibility-focused AI work that serves the Deaf communities and mentoring younger STEM students, leading outreach and impact efforts.
- **NASA Space Apps 2024 - Global Honorable Mention:** NASA Space Apps is the world's largest hackathon for all ages with 93,520 participants, 9,996 projects from 163 countries. NASA judges choose 40 global winners and 19 Honorable mentions.
<https://www.spaceappschallenge.org/nasa-space-apps-2024/find-a-team/farmvis/?tab=project>
- **NASA Space Apps 2023, 2024 - Global Nominee:** 1st place Houston TX, 1 of 580 teams from 58,000 participants or top 10% globally.
<https://www.spaceappschallenge.org/2023/find-a-team/fire/>
- **UT Dallas STEM Research Competition 2024 - 2nd Place:** UTD's CS Department hosts a STEM research competition where high school, and undergraduate participants present technical research. Projects are judged by UTD faculty.
 - Spent two months full-time developing a pose-estimation pipeline using a multi-camera system-estimating 3D hand/object poses with MANO, HaMeR, and FoundationPose-and built an end-to-end workflow for robotic manipulation.
 - https://drive.google.com/file/d/1_WUGfEWwmEg7CFxqUgV-2bXgKervgk6I/view
- **MIT App Inventor of the Month:** Applicants submit their apps directly to MIT App Inventor. MIT's App Inventor Foundation reviews and selects winners. Each month, they choose only a small group of winners worldwide-typically around 20 winners annually, with 5 teen inventors.
 - Identified a privacy and usability issue in my class's homework system and built an app that pulled each student's assignments into a personalized view using Google Sheets queries. I designed the interface, wrote the full code, and submitted a working app, video demo, and written explanation to MIT.
 - <https://appinventor.mit.edu/explore/app-month-gallery>

EXTRACURRICULARS

- **Developer of AI Infused Accessibility & Educational Apps**
 - Added AI features to Audemy, the largest educational game for blind students (200,000+ users; 1 in 5 blind children in the U.S.). Helped design, develop, and present the platform; Audemy is now on Forbes Games list 2026.
 - Built blind navigation and STEM-learning apps in MIT App Inventor. (4th place, Congressional App Challenge '24 TX-22)
<https://audemy.org/>

TECHNICAL SKILLS

- Languages: Python, Java, Swift, JavaScript, HTML/CSS, C#, C++
- Frameworks & Libraries: PyTorch, TensorFlow, React, Express.js, Flask, NumPy, MediaPipe, OpenAI API, YOLO, ROS/rospy, LeRobot
- Developer Tools: Git, Docker, Google Cloud Platform, AWS, NVIDIA Isaac Sim, Unity, Premiere Pro
- Machine Learning & Robotics: Reinforcement Learning, Vision-Language-Action (VLA) Models, Transformers, Attention Mechanisms, Robot Manipulation, Multimodal Fusion, Real-Time Processing, 6D Pose Estimation
- Specialized Tools: Multi-Camera Systems, RGB-D Imaging, MANO, HaMeR, FoundationPose, Raspberry Pi, Arduino