

Matthew Jeung

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EDUCATION

University of Chicago

BS in Computer Science, Specialization in Machine Learning

- **GPA:** 3.86/4

Chicago, IL

Expected, 2026

RESEARCH EXPERIENCE

University of Chicago - Actuated Experience Lab

Undergraduate Researcher (Advised by Prof. Ken Nakagaki)

9/2023 – Present

Chicago, IL

- Introduced a new hand and speech-based approach for generative control of swarm user interfaces.
- Designed a novel modular haptic device and system, in industry collaboration with Sony.
- First-author and co-first-author to two full HCI research papers.
- Designed and conducted two user studies.

Toyota Technological Institute at Chicago

Intern at Robot Intelligence through Perception Lab (Advised by Prof. Matthew Walter)

6/2025 - Present

Chicago, IL

- Worked on a novel video autoencoder architecture for a robot learning paper, under a PhD.
- Leading a multi-module flywheel-based locomotion project with deep reinforcement learning.
- Extensive experience with PyTorch, parallelized GPU training, data processing, and visualization.
- Developed and taught computer vision curriculum for a HS robotic arm course.

PAPERS

- [1] Shape n' Swarm: Hands-on, Shape-aware Generative Authoring with Swarm UI and LLMs.
Matthew Jeung, Anup Sathya, Michael Qian, Steven Arellano, Luke Jimenez, Ken Nakagaki.
*In Proc. UIST 2025. Acceptance Rate: 22.2%. **Best Demo (Jury's Choice)**.*

- [2] Co-first author for paper submitted to CHI 2026

AWARDS

UIST 2025 Best Demo Award (Jury's Choice)	2025
CRA Outstanding Undergraduate Researcher Nominee (<i>1 of 4 selected from the University of Chicago</i>)	2025
Quad Undergraduate Research Award (2x)	2024-25
Jeff Metcalf Fellowship	2023
Humanities UX Scholar	2022

COURSEWORK

Theory of Algorithms; Math Foundations for Machine Learning; Engineering Interactive Devices; Mobile Computing; Introduction to Designing Interaction.

Graduate/PhD Level: Introduction to Machine Learning; Robot Planning, Learning, and Estimation

TEACHING

Toyota Technological Institute at Chicago

Robot Arm Course Instructor

6/2025 - 8/2025

Chicago, IL

- Mentored five HS students through a hands-on robot manipulation course as part of a TTIC outreach program.
- Developed computer vision curriculum and project to automate robot arm playing TicTacToe.
- Gave lectures on Python and computer vision.

VOLUNTEERING

UChicago Asian American Intersivity	September 2024-Present
<i>Service Coordinator</i>	<i>Chicago, IL</i>
<ul style="list-style-type: none">• Started and organized regular tutoring, care-packaging nights with local organizations.• Developed partnerships with local service providers in Chinatown and South Chicago.	

EXTRACURRICULARS

UChicago Robotics Team	October 2024-Present
<i>Combat Robotics Team</i>	<i>Chicago, IL</i>
<ul style="list-style-type: none">• Won MakeHarvard 2025 Most Sustainable Project with glove integrated with grocery sustainability feedback• Designed 1-lb combat robot from scratch, developing Fusion 360, electronics, and prototyping skills	
Phoenix Sustainability Initiative	September 2023 – May 2024
<i>Green Data Team</i>	<i>Chicago, IL</i>
<ul style="list-style-type: none">• Performed Python data analysis and visualization on Chicago environmental justice and health conditions.	

TECHNICAL SKILLS

Programming: Python, Java, Swift, C/C++, JavaScript, PyTorch, React, Processing, HTML/CSS
Electronics and Hardware: Microcontrollers (Arduino and Raspberry Pi), Fusion 360, Soldering, Laser Cutting
Design: Figma, Adobe Photoshop, Final Cut Pro