

Hong Yi Zhang

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EDUCATION

Franklin W. Olin College of Engineering

Exp. May 2028

B.S. in Electrical and Computer Engineering

GPA: 4.0/4.0

- **Relevant Coursework:** Data Structures, Machine Learning, Computer Architecture, Probability and Statistics
- **Honors:** Recipient of the Olin College Merit Scholarship; valued at \$120,000

Babson College (Cross-Registration) | *Certificate of Entrepreneurship*

2024 – Present

EXPERIENCE

Amazon Web Services (AWS) | Incoming Software Development Engineer Intern *May 2026 – Aug 2026*

CG Creative Studios | Technical Consultant & Project Manager *Jan 2026 – Present*

- Directed a 4-person engineering team to architect an automated Scope of Work (SOW) generation pipeline, replacing manual documentation workflows with a scalable, AI-assisted system.
- Engineered a standardized SOW library with integrated pricing data, reducing drafting time and version errors.

Town of Wellesley, MA | Strategy Consultant *Jan 2026 – Present*

- Advised city leadership on optimizing municipal waste logistics, evaluating the financial, environmental, and operational tradeoffs between a centralized resident drop-off system and a modernized curbside collection model.
- Conducted stakeholder analysis and lifecycle modeling to measure greenhouse gas emissions and costs, presenting data-driven recommendations in weekly client briefings.

Amazon | Software Development Engineer Intern *May 2025 – Aug 2025*

- Designed and deployed an AI-powered Jira root cause analyzer using Amazon Q (LLM), adopted organization-wide, reducing bug triage time by an estimated 50% across teams.
- Processed over 1,000 real-world Jira tickets through a multi-stage ML pipeline (parsing, retrieval, root cause prediction) with 90-95% fix prediction accuracy.
- Implemented secure authentication via AWS Secrets Manager, improving security and replacing legacy tokens.

Olin Public Interest Technology (PInT) | AI/ML Researcher *Aug 2024 – Feb 2025*

- Fine-tuned ASR models on 10,000+ audio samples to mitigate bias against non-standard speech, leveraging Hugging Face models to advance to the AAAS Science Competition.
- Slashed Word Error Rate (WER) from 20.4% to 6.2% for English and Character Error Rate (CER) from 66.4% to 19.0% for Mandarin, demonstrating model robustness across various stutter types.

Olin Rocketry | Avionics Engineer *Aug 2024 – Feb 2025*

- Developed a custom radio PCB in KiCad and programmed avionics in Arduino IDE, enabling real-time telemetry over a 10,000+ ft range with zero packet loss, improving data logging by 40%.

AWARDS

ICPC Qualifier: Ranked Top 10 regionally and Top 25% overall in the International Collegiate Programming Contest.

Amazon Future Engineer Scholarship: Awarded \$40,000; selected from 5,000+ applicants.

Outstanding Research Award, NYU STEP: Published research on the impact of AI in cybersecurity.

TECHNICAL PROJECTS

Canary (Digital Mine Safety System) | *Python, Raspberry Pi* | <https://github.com/tastychez/Canary> 2026

- Engineered a real-time hazard detection system for mines, winning 3rd in Social Impact and 4th in Hardware at Yale's flagship YHack hackathon against 700+ participants.
- Built a live data pipeline integrating gas sensors and depth cameras via Raspberry Pi to continuously process environmental data and trigger autonomous evacuation alerts.
- Developed a Python-based simulation to map tunnel geometry and model gas diffusion, predicting danger zones.

AI.gamo (Agri-Tech Robot) | *Computer Vision, Python, Arduino, C++, Motor Control* 2025

- Designed a bio-inspired, weed-uprooting robot for rice fields, winning 1st Place and \$5,000 in seed funding at the Babson College Buildathon out of 500+ participants.
- Trained and deployed a Computer Vision model to accurately differentiate invasive weeds from crop yields.
- Programmed hardware control logic using Arduino and motor drivers to execute targeted, mechanical uprooting.

TECHNICAL SKILLS

Languages/Frameworks: Python, C, C++, Java, MATLAB, React, KiCad, Arduino, HTML/CSS, Kotlin, Typescript

Concepts & Tools: Machine Learning, Embedded Systems, Computer Vision, LLM Orchestration, Agentic Workflows