

# Adam Cheng

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## Education

### University of Michigan

*Bachelor of Science in Computer Engineering*

**Ann Arbor, MI**

*Sept 2021-April 2025*

- GPA: 3.96/4.00
- Course Highlights: Logic Design, Signals and Systems, Electronic Circuits, Computer Organization, Programming and Data Structures, Linear Algebra, Discrete Math, Honors Differential Equations

## Experience

### Secure Cloud Manufacturing Lab, U-M College of Engineering

*Robotics, Control, and Automation Researcher*

**Ann Arbor, MI**

*Jan 2022-present*

- Developed ROS packages to streamline and standardize vision data flows across local networks and industrial robots, creating 10+ new robot-robot collaboration configurations and decreasing processing time by over 4 hours per week
- Led an upgrade of aging RGB-D sensor hardware and software by identifying bottlenecks and determining novel methods, resulting in ~25x improved vision resolution capabilities overall and enabling key machine learning processes and visual servoing algorithms
- Collaborated with researchers to implement automated 2D calibration utilizing AprilTags, improving the accuracy of pose estimation analysis

### Quantiphi

*Data Science Intern*

**Remote**

*Summer 2022*

- Developed REST APIs using FastAPI for a full stack web project, creating a content based recommendation system using scikit-learn and pandas to analyze user profiles and extract relevant statistics and features
- Designed scalable noSQL databases on Google Cloud Platform to host new user data

### Google Code Next Program

*Code Next Student*

**New York, NY**

*Sept 2019-June 2021*

- Created a web application to streamline the college application process through Google's entrepreneurship and startup development program, making the process 3x faster for an average student and winning 1st place in the Congressional App Challenge
- Built a AI enabled mood tracker in a team of 4, directing UI/UX design, project management, user research, business modeling, and pitching, winning 1st place in the 2021 Code Next hackathon

## Activities and Leadership

### Michigan Data Science Team

**Ann Arbor, MI**

- Analyzed 15,000 professional tennis matches from 2015 onwards, employing pandas to perform data cleaning, visualization, and analysis, extracting conclusions about the effects of athlete rest time between tournaments on key performance metrics like trends in double fault rates

### President of Rescuing Leftover Cuisine Chapter

**New York, NY**

- Rescued over 3,000 pounds of uneaten food from local businesses by organizing and leading volunteer events, recapturing \$14,000 in costs, creating 2000 meals, and offsetting 6000 lbs in emissions
- Grew active membership by over 160% year over year by restructuring organizational model, increasing the number of events run by roughly 250%

## Skills and Interests

**Skills:** Python, C++, pandas, numpy, noSQL, ROS, git, CI/CD, HTML, CSS, JavaScript, Google Cloud Firestore, Excel, PowerPoint, Word, Arduino, Breadboarding, Verilog VHDL, FPGAs, 3D Printing, CAD

**Interests:** Violin (Carnegie Hall performances, CNN/NPR features, Grammy nominated album), International Relations (two-time winner of nationally competitive State Dept. scholarship to promote cultural and diplomatic exchange in Seoul, South Korea; also studied in Prague, Czech Republic), Filmmaking, Music Production (Blue Records Group at U-M)