

# JOSHUA XIE

+1(425) 247-5062 ♦ Ann Arbor, MI

joshxie@umich.edu ♦ <https://www.linkedin.com/in/josh-xie/> ♦ [tamedquadrapanda.github.io](https://github.com/tamedquadrapanda)

## EDUCATION

### University of Michigan - Ann Arbor, MI

*Expected 2025*

*B.S.E in Computer Science and Engineering, Minor in Statistics*

*Major GPA 3.6*

- **Relevant Coursework:** Programming and Intro Data Structures, Discrete Mathematics, Introduction to Statistics and Data Analysis, Data Structures and Algorithms, Computer Organization, Web Systems, Software Engineering, Machine Learning, Linear Algebra
- **Activities:** Michigan Hackers, Michigan Solar Car Team

### Newport Senior High School - Bellevue, WA

*2018-2022*

*High School Diploma*

*GPA 4.3*

- **Relevant Coursework:** AP Computer Science, AP Calculus BC, Data Structures and Algorithms
- **Activities:** Football - *Captain*, Student Government - *President*, Programming Club - *Co-President*, Math Club - *President*
- **Awards:** USAMO Qualifier, USACO Platinum Division Qualifier

## EXPERIENCE

### Microsoft

*May 2023 - August 2023*

Software Engineering Intern

*Beijing, China*

- Worked full-time on-site at Microsoft's **Cloud&AI** computer vision team. Utilized Microsoft's **Azure Blob Storage** REST API for **10%** improved efficiency of dataset retrieval from databases when processing datasets.
- Implemented a **Flask** REST API leveraging **Langchain**, a framework for developing applications using **LLMs**. Allowed users to call **AzureOpenAI's GPT-4** model for improved dataset analysis accuracy by up to **70%**.
- Created a memory framework storing up to **32,000 tokens** equivalent to **12** Optical Character Recognition performance datasets, where users are able to use datasets given to the GPT model from previous calls for subsequent calls to the API.
- Delivered chat panel integration with a **dynamic UI**, using a **React** class component to handle retrieval and processing of data. Integration is currently being used by **17** Engineers, improving workflow by **35%** with detailed design documentation.

### Wormpex AI Research

*June 2022 - August 2022*

Research Intern

*Bellevue, WA*

- Appointed as team lead, spearheading a team of **6** interns to remotely develop a machine learning driver in Python.
- Addressed overfitting in classifier training and improved driver efficiency by up to **6.5%**.
- Created a web scraping script using **Selenium** and **BeautifulSoup** to retrieve data relevant to classifier training.
- Optimized the speed of the company homepage by **30%** by reducing overall API calls.

## PROJECTS

### Autograder

- Created an auto-grader that runs test cases on coding competition contestant source codes and matches output to a pre-existing output solutions file.
- Developed a dynamic full-stack interface that allows users to save submissions for past contests in personally created accounts on a fully-interactive website.
- <https://github.com/tamedquadrapanda/Contest-main/>

## SKILLS

### Languages

C++, Java, Python, C, SQL, HTML, CSS, JS, Swift

### Technologies

Azure, AWS, LaTeX, Linux, Git, Docker

### Additional

Flask, NodeJS, NPM, Postman, Selenium, BeautifulSoup, React