

# Michael Wu

909-918-9550 | [mlmichaelwu@gmail.com](mailto:mlmichaelwu@gmail.com) | [linkedin.com/in/michael-ml-wu](https://linkedin.com/in/michael-ml-wu) | [github.com/michaelwuhu](https://github.com/michaelwuhu)

## EDUCATION

### California State Polytechnic University, Pomona

Pomona, CA

*Bachelor of Science in Computer Science*

*Expected May 2027*

**Coursework:** Data Structures and Algorithms, Unix and C Programming, Computer Organization and Assembly Programming, Discrete Structures, Calculus I, II, III, Linear Algebra, Differential Equations, Probability and Statistics

## EXPERIENCE

### Northrop Grumman Collaboration

June 2024 – Present

*Ground Control Station Backend Developer*

- Spearheaded collaboration with 100+ engineers across Cal Poly Pomona & San Luis Obispo, resulting in the successful development of advanced autonomous vehicle systems.
- Engineered a telemetry simulation using C# & PostgreSQL to analyze fire destruction, achieving an average send & receive latency of 2.21 ms through the implementation of websockets & optimization of data processing pipelines.
- Innovated a Rust-based state management system for a multi-window Tauri PWA, significantly improving performance by offloading frontend logic to middleware, which ensured consistent state management across multiple screens while reducing desynchronization incidents by 90%.

### Computer Science Society ACM Chapter

November 2023 – Present

*Project Initiative Chair*

- Spearheaded a project initiative program that empowered over 100 students to engage in hands-on software engineering projects, enhancing technical skills & collaboration, leading to a 30% improvement in overall project completion rates.
- Orchestrated the recruitment of developers from clubs & academic departments, forming 15 cross-functional project teams that met or exceeded deadlines, resulting in average project delivery time reduction of 20%.
- Implemented a structured timeline management system with regular progress check-ins for all teams, achieving a 95% on-time project completion while fostering accountability & enhancing team productivity by 40%.

## PROJECTS

### Icebreak | *React Native, Node.js, Express.js, PostgreSQL, Prisma ORM, Expo, Git*

- Built a full-stack mobile application in a collaborative team of 20 using Express.js serving a REST API with React Native as the frontend.
- Implemented guild pages to display organization events, announcements, and members.
- Developed API routes using Express.js allowing functionality to create, fetch, update, and delete records for school organization events & attendance tracking

### Robot Scouting App | *React.js, Node.js, Express.js, MongoDB, Git*

- Deployed a full stack web app collaborating with 3 other developers to synthesize data from FIRST Robotics Competition robots.
- Integrated heatmaps with Node.js packages to visually map robot patterns, strengths, and weaknesses.
- Implemented offline caching, doubling app users in low-connectivity venues, resulting in 300+ more data samples.

### Anagrams Solver | *Python, pandas, tkinter*

- Programmed an algorithm to create & return a list of anagrams generated from any number of inputted letters.
- Leveraged pandas library to analyze & optimize word frequency data, to efficiently match words.
- Designed & implemented the app's GUI using Tkinter in Python.

### Whiteboard Screen Share | *Angular.js, Node.js, socket.io*

- Developed a real-time collaborative whiteboard web application using Angular.js, Node.js, and Socket.io.
- Implemented core drawing functionalities (draw, erase, undo, redo, clear screen) with low latency updates across all users via Socket.io, ensuring a smooth collaboration experience.

## SKILLS

**Programming:** Java, Python, JavaScript, Typescript, HTML/CSS, C/C++, SQL, Rust

**Technologies:** React, Node.js, Express.js, Git/Github, React Native, Angular.js, PostgreSQL, MySQL, MongoDB, Redis, JUnit, Material-UI, Docker, socket.io