# Michael Wu

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## **EDUCATION**

#### California State Polytechnic University, Pomona

**Expected May 2027** 

- Major: B.S. Computer Science
- GPA: 3.8/4.0, Dean's Honor List
- Relevant Coursework: Data Structures and Algorithms, Calculus I, II, III, Linear Algebra, Differential Equations

# **EXPERIENCE**

# Northrop Grumman Collaboration Project (NGCP) | Ground Control System (GCS) Engineer June 2024-Present

- Collaborated with 100+ engineers from Cal Poly Pomona & San Luis Obispo campuses to build autonomous vehicles.
- Developed a telemetry simulation using C# and PostgreSQL to identify fire destruction from autonomous vehicles.
- Explored use of WebSockets and REST APIs for real-time data updates with average send and receive time of 3 ms.

#### Computer Science Society (ACM Chapter) | Project Initiative Chair

November 2023-Present

- Organized project initiative program, facilitating creation of mobile/web applications and AI/Machine Learning projects.
- Enhanced participation by 50+ students through doubling student-led projects, enabling skill development opportunities.
- Collaborated with professors to enhance student participation and organized project schedules for timely completion.

# Team 3473 Sprocket (Competitive Robotics Team) | Software Engineer

**October 2022-May 2023** 

- Led robot's autonomous programming using Java and made use of wpilib libraries from FRC tools and libraries.
- Developed web app with TypeScript, React, HTML, and CSS for data collection on rival teams' robots.
- Facilitated seamless team collaboration for effective integration of programming efforts and data management.

#### **PROJECTS**

### **Bronco Hacks Application Portal**

**August 2024-Present** 

- Created hackathon application portal collaborating with 10 developers for a 300+ participant, university-wide hackathon.
- Developed team creation page allowing for users to create and join teams utilizing React.js, Express.js, & PostgreSQL.
- Implemented secure user account creation via RESTful API route with password hashing for enhanced functionality.

#### **Icebreak Mobile App**

**October 2023-May 2024** 

- Collaborated with a team of 20 to develop a full-stack mobile app used for students to connect with clubs and peers.
- Led app's frontend, managing 10 developers in creation of navigation, event management, and guild management.
- Explored backend development, creating RESTful APIs allowing event creation and event attendees to update status.

#### **Robot Scouting Web App**

November 2022-April 2023

- Developed a full stack web app with 40+ users to synthesize data from FIRST Robotics Competition (FRC) robots.
- Utilized team-collected data to implement heatmaps, visually mapping robot patterns, strengths, and weaknesses.
- Implemented offline caching, doubling app users in low-connectivity venues, resulting in 300+ more data samples.

# **Anagrams Solving App**

December 2022-January 2023

- Developed an algorithm to create and return a list of words that could be created from any number of inputted letters.
- Explored pandas library to analyze & optimize word frequency data, improving efficiency of word-matching process.
- Designed & implemented the app's GUI using Tkinter in Python, allowing users to input and select their choice of letters.

## **SKILLS**

**Programming:** Java, Python, Javascript, Typescript, HTML, CSS, C++, C#

Technologies: React is, React Native, Git/Github, Express is, Node is, MySOL, PostgreSOL, .NET