

Kyle Wade

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Education

University of California, San Diego

M.S. IN MACHINE LEARNING AND DATA SCIENCE

San Diego, CA

Sept 2023 - June 2025

B.S. IN COMPUTER ENGINEERING

Sept 2020 - June 2023

- **3.8 GPA.** Member of Honor Societies [Tau Beta Pi \(TBP\)](#) and [IEEE - Eta Kappa Nu \(HKN\)](#).

Work Experience

UC San Diego Mobile Systems Design Lab

San Diego, CA

APP DEVELOPER

Jan 2023 - Present

- Leveraged **machine learning** and **React Native** to create a mobile application that allows for patients to perform physical therapy exercises at home while given real-time feedback using skeletonized models.
- Delivered first iteration of the app to **100+ physical therapists** and **1300+ patients**.

UC San Diego Computer Science and Engineering Department

San Diego, CA

INSTRUCTIONAL ASSISTANT

Sept 2021 - March 2023

- Helped **1400+ students** by grading exams, giving constructive feedback with programming assignments, and holding tutoring sessions outside of normal class time in a Data Structures and Algorithms class, teaching **binary search trees**, **linked lists**, **stacks**, **heaps**, **priority queues**, and **hashmaps**.
- Received **99% student approval** rating across **200+ one-on-one sessions**.

Qualcomm

San Diego, CA

SOFTWARE ENGINEER INTERN

June 2022 - Sept 2022

- Worked with **8 customers** to develop **2 tools** in **C#** and **XAML** which fully implement and demonstrate **5 new Qualcomm Snapdragon features**.
- Enhanced CPU thermal stress-testing by optimizing multithreading and automating tasks through scripting, **increasing product efficiency by 50%**.

Leadership & Activities

IEEE - Eta Kappa Nu (HKN)

San Diego, CA

SOFTWARE DEVELOPER LEAD — [GitHub](#)

May 2021 - Present

- Led a team of **6 developers** on the creation of a member portal used by **400+ HKN honor society members** at UC San Diego.
- Developed a stateful **React.js** frontend displaying a role-specific website where officers can create events for members on a calendar.
- Designed a scalable **PostgreSQL relational database** holding event and member data while utilizing **REST API** for entity endpoints.
- Created an authentication flow using **Firebase** to store session tokens on the client, enabling exclusive member sign-in.

IEEE - Eta Kappa Nu (HKN)

San Diego, CA

EXECUTIVE BOARD OFFICER — [WEBSITE](#)

May 2021 - Present

- Organized and ran hackathons, ceremonies, and industry recruiting events for **hundreds of university students**.
- Streamlined new students inducting into the engineering honor society through conducting technical interviews.

Projects

Moment

UNIVERSITY EVENTS MOBILE APP — [WEBSITE](#) / [GitHub](#)

- Developed a **React Native mobile app** which scrapes social media data and parses them into events for university students to view, host, and join.
- Architected a **Starlette API** backend written in **Python** integrated with a **Neo4j** database to create an event recommendation system.
- Designed and developed a launch website using **Figma** and **React.js**, leading to a peak visitor count of **2000+ visitors** according to Google analytics.

ForestShield

WILDFIRE PREVENTION WEB TOOL

- Collaborated with **6 developers** over **72 hours** to create an early wildfire detection tool which shows real-time low-latency wildfire risk in forests.
- Built a scalable system which leverages **IoT sensors**, **5G**, **LoRaWAN**, **Python**, **React.js**, and **machine learning** to send incoming sensor data to a ML model trained by existing forestfire datasets, creating an inference on wildfire severity around deployed sensors to display as a heatmap on the frontend.
- **Achieved top 3 out of 150+ competitors** in QHack2022, Qualcomm's annual 5G hackathon for interns.

MarioKartCentral

MARIO KART TOURNAMENT HOSTING WEBSITE — [WEBSITE](#)

- Worked in a team of **7 developers** and **3 designers** to create a website used to host Mario Kart Tournaments for the competitive Mario Kart community.
- Utilized **Docker containerization** and **SQL** to develop a scalable backend for storing secure user data and quickly delivering tournament information.
- Website currently has **32000+ users** with **200+ high-attendance tournaments** across **5+ years**.

Technical Skills

Languages: JavaScript, TypeScript, SQL, Cypher, Java, C, C++, C#, Go, Python, CSS, HTML, XML, XAML, Bash, PowerShell

DevOps: AWS, Heroku, Netlify, Firebase

Frameworks: GitHub, React, React Native, Expo, Neo4j, Docker, Starlette, FastAPI, Express, Rest API, Node, GDB/Valgrind, Linux, TensorFlow, OpenCV

Techniques: Agile Software Process, Behavior-Driven Development, Design Patterns, Software Engineering Principles