

# Kyle Wade

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## Education

### University of California, San Diego

M.S. IN COMPUTER ENGINEERING (MACHINE LEARNING & 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 Computer Science and Engineering Department

San Diego, CA

TEACHING ASSISTANT

Sept 2021 - Present

- Helped **1,400+ 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**.

### VirtualPT

San Diego, CA

SOFTWARE ENGINEER INTERN

June 2023 - Sept 2023

- Designed and developed a mobile app using **Figma, TypeScript, and React Native** that allows patients to perform physical therapy exercises at home while being given real-time feedback using skeletonized models displayed on the phone.
- Implemented a robust **Express.js** backend, optimizing **RESTful API** endpoints for performance, security, and scalability.
- Marketed and introduced first iteration to **5+ physical therapists** and **50+ patients**.

### Qualcomm

San Diego, CA

SOFTWARE ENGINEER INTERN

June 2022 - Sept 2022

- Worked with **8 customers** to develop **2 tools** using **C++** and **React.js** 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

EXECUTIVE BOARD OFFICER — [WEBSITE](#)

May 2021 - Present

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

SOFTWARE DEVELOPER LEAD — [GITHUB](#)

May 2021 - June 2023

- Led a team of **9 developers** on the creation of a member portal relied on by **450+ HKN honor society members** to help run the organization.
- Architected a scalable, full-stack web app using **React.js, Express.js, Firebase, and PostgreSQL** for exclusive member sign-in and event analytics.

## Projects

### Where2Be

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

- Developed a **React Native** mobile app with **1,200+ users** which scrapes social media data and parses them into events for university students across UC Berkeley, UC San Diego, University of San Diego, San Diego State University, UC Irvine, and UC Santa Barbara.
- Architected a **Fast API** backend written in **Python** integrated with a **Neo4j** database to create an event recommendation system based on interests.
- Designed and developed a launch website using **Figma** and **Next.js**, which resulted in **2,000+ visitors** according to Google Analytics.

### ForestShield

WILDFIRE PREVENTION WEB TOOL — [HACKATHON PRESENTATION & DEMONSTRATION](#)

- 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.

### 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 **32,000+ users** with **200+ high-attendance tournaments** across **5+ years**.

## Technical Skills

- Languages:** JavaScript / TypeScript, Java, Python, C, C++, HTML, CSS, SQL
- Frameworks:** React.js, React Native, Next.js, AWS, GitHub, Expo, Neo4j, OpenCV, TensorFlow, Docker, Rest API
- Techniques:** Agile Software Process, Behavior-Driven Development, Design Patterns, Software Engineering Principles