

# Kyle Wade

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## Education

### University of California, San Diego

San Diego, CA

B.S. IN COMPUTER ENGINEERING

Sept 2020 - June 2024

- **3.9 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

INSTRUCTIONAL ASSISTANT

Sept 2021 - Present

- Helped **360+ 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.
- Taught and reviewed concepts such as **binary search trees, linked lists, stacks, heaps, priority queues, and hashmaps.**
- Received **100% student approval** rating across **120+ 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 **5 new Qualcomm Snapdragon features.**
- Created an application which renders all of a computer's cameras onto one screen simultaneously while designing novel facial detection and wide dynamic range post-processing algorithms with intuitive frontend UI, **boosting customer satisfaction across multiple international clients.**
- Optimized CPU multithreading and automated complex tasks through scripting, **increasing product efficiency by over 50%.**

### Navlabs

Laguna Niguel, CA

SOFTWARE ENGINEER INTERN

June 2021 - Sept 2021

- Developed a **C++** executable that scans binary code from GPS simulators and converts it into data readable to other systems.
- Resulted in **200% increased productivity** from company simulators. Executable currently used by company to parse GPS data.

## Leadership & Activities

### IEEE - Eta Kappa Nu (HKN)

San Diego, CA

SOFTWARE DEVELOPER LEAD — [GITHUB](#)

May 2021 - Present

- Led a team of **6 software engineers** on the development of a member portal used by **150+ 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.

### FIRST Robotics Competition - Team 5199

San Juan Capistrano, CA

TEAM ENGINEER

Sept 2017 - June 2020

- Learned and used **Python** and **C++** through constructing a yearly team robot in a fast-paced environment. Achieved **1st out of 56 teams** in the 2019 Los Angeles Regionals and **1st out of 42 teams** in the 2019 Ventura Regionals. Competed in the **World Championships** in 2019.

## Projects

### 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 around individual sensors on a heatmap for first responders.
- Built an architecture 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 on the frontend.
- **Achieved top 3 out of 150+ competitors** in QHack2022, Qualcomm's annual 5G hackathon for interns.

### Moment

UNIVERSITY EVENTS MOBILE APP — [GITHUB & DOWNLOAD](#)

- Co-founded and developed a **React Native mobile app** which scrapes social media data and parses them into events for students.
- Used the graph database management system **Neo4j** integrated in a **Golang** backend to create an event recommendation system.
- Currently has **600+ Android and iOS users.** Gained funding through investors and currently adding new features based on customer feedback.

## Technical Skills

**Languages:** Java, C, C++, C#, JavaScript, Typescript, Python, CSS, HTML, XML, XAML, Bash, PowerShell, Dart, SQL

**DevOps:** Docker, Heroku, Netlify, Firebase, CircleCI

**Frameworks:** GitHub, React (web and native), Express, Rest API, Node, PostgreSQL, Neo4j, Flutter, GDB/Valgrind, JUnit, Linux, TensorFlow

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