

# Simon Quach

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## EDUCATION

### University of California, San Diego

*Bachelor of Science (B.S.) Math-Computer Science*

Expected June 2025

La Jolla, CA

### Orange Coast College

*Associate of Science (A.S.) Mathematics - President's List Scholar (GPA: 4.0/4.0)*

June 2022 - May 2023

Costa Mesa, CA

- Relevant Courses: Java OOP, Multivariable Calculus, Linear Algebra, Differential Equations

## EXPERIENCE

### Code Ninjas

*Tutor/Mentor*

Jun 2022 - Present

Garden Grove, CA

- Teaches **JavaScript** and game engines (**Unity, Roblox Studio**)
- Proctors and scores programming assessments for video games
- Communicates students' progress to students, parents or teachers in written progress reports
- Facilitates tutoring workshops and collaborative projects for small groups of students

## PROJECTS

### GitPT | *NextJS, TailwindCSS, Three.js, Node.js, Express, MongoDB, OpenAI GPT-3, Milvus*

- **Winner** at UC Santa Barbara SB Hacks IX (out of **132** total participants)
- Developed low-context chatbot app using GPT-3.5 for cost-effective codebase understanding
- Designed on **Figma** and implemented an intuitive and visually appealing user interface
- Created API routes and helper functions for GPT-3.5 and tree traversal integration
- Implemented a breadcrumb system to navigate the repository using a tree structure

### MonkeySign | *ReactJS, Vite, TailwindCSS, Flask, TensorFlow, Keras*

- **Winner** at UC Riverside CitrusHack (out of **148** total participants)
- Utilizing real-time hand gesture detection and recognition algorithms, resulting in improved ASL skills
- Leveraging **Flask** and **socket.io** for seamless communication between the frontend and backend

### Sink or Swim | *NextJS, TypeScript, TailwindCSS, Flask, TensorFlow, Keras, OpenAI GPT-3*

- **Winner** at Nor Cal Spring Hacks 2023 (out of **194** total participants)
- Led team in developing a webapp predicting Titanic survival and generating personalized narratives
- Developed custom dropdown menus for form submission, enhancing the user experience by providing intuitive and efficient input options.
- Ensured seamless integration between **NextJS** and **Flask**, allowing for efficient communication and data transfer between the user interface and the machine learning model.

### Paddy Plant Prognosis | *ReactJS, TailwindCSS, Vite, Flask, TensorFlow, Keras, OpenCV*

- **Winner** at MLH Hackrithmic 2023 (out of **106** total participants)
- Created a web application to help farmers identify diseases in their crops quickly and accurately
- Designed overall website concept/layout (front-end), implemented responsive design across entire app

## TECHNICAL SKILLS

**Programming Languages:** JavaScript, TypeScript, HTML/CSS, Python, Java

**Frameworks/Libraries:** ReactJS, NextJS, Bootstrap, TailwindCSS, Node.js, ExpressJS, OpenCV

**Other:** Firebase, Axios, Bash, Git, MongoDB, Vite, Vercel, Discord API, Figma