Simon Quach

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EDUCATION

UC San Diego - GPA: 4.0/4.0   **June 2025**
Bachelor of Science (B.S.) Math-Computer Science   *La Jolla, CA*
- *Courses:* Fundamentals of Computer Science, Java OOP, Multivariable Calculus, Linear Algebra

EXPERIENCE

Code Ninjas   **Jun 2022 - Present**
Tutor/Mentor   *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*   **May 2023**
Hackathon Project (Website) - (Github)
- 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
- **Winner** at UC Santa Barbara SB Hacks IX (out of 132 total participants)

MonkeySign | *ReactJS, Vite, TailwindCSS, Flask, TensorFlow, Keras*   **April 2023**
Hackathon Project (Website) - (Github)
- 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
- **Winner** at UC Riverside CitrusHack (out of 148 total participants)

Sink or Swim | *NextJS, TypeScript, TailwindCSS, Flask, TensorFlow, Keras, OpenAI GPT-3*   **February 2023**
Hackathon Project (Website) - (Github)
- 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.
- **Winner** at Nor Cal Spring Hacks 2023 (out of 194 total participants)

Paddy Plant Prognosis | *ReactJS, TailwindCSS, Vite, Flask, TensorFlow, Keras, OpenCV*   **January 2023**
Hackathon Project (Website) - (Github)
- Created a web application to help farmers identify diseases in their crops quickly and accurately
- Led team of 3: delegated tasks, helped teammates debug, etc.
- Designed overall website concept/layout (front-end), implemented responsive design across entire app
- **Winner** at MLH Hackrithmitic 2023 (out of 106 total participants)

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, HTML/CSS, Python, Java
Frameworks: ReactJS, NextJS, Bootstrap, TailwindCSS, Node.js, ExpressJS
Libraries: Tensorflow, Mongoose, Beautiful Soup, OpenCV, NumPy, Matplotlib, Pandas, Selenium
Other: Firebase, Axios, Bash, Git, MongoDB, Vite, Vercel, Discord API, Figma