

# Nicholas Nguyen

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## EDUCATION

### University of California, San Diego

Bachelor of Science: Computer Science | GPA: 3.706/4.0

San Diego, CA

September 2022 - June 2026

**Relevant Coursework:** Computing in Python, Object-Oriented Programming, Advanced Data Structures and Algorithms, Algorithms/Systems Analysis, Software Engineering, Machine Learning, and Database System

## EXPERIENCE

### Software Developer

November 2024 - Present

CSES Dev

San Diego, CA

- Collaborated with Professor Gerald on the development of WebClicker++, an application that enhances student participation and provides professors with tools for managing class sessions for up to 300+ students
- Optimized database performance with PostgreSQL and Prisma, reducing redundant queries by 40% through Prisma's query batching, cutting response times by 25%
- Integrated ShadCN UI components into a Next.js/React/Tailwind CSS frontend, enhancing UI consistency
- Implemented RBAC with Firebase Authentication and Firestore, ensuring secure and efficient access management
- Utilized Postman for API testing and validation, leveraging mock servers to simulate responses

### Front-End Developer

October 2024 - Present

CSES Opensource

San Diego, CA

- Contributed as a front-end developer to the creation of an open-source e-commerce platform for UCSD students
- Integrated Google Domain Sign-In with OAuth 2.0 for secure authentication, restricting access to verified UCSD students
- Built responsive front-end with React and Tailwind CSS, ensuring seamless UI for both mobile and desktop users
- Developed an automated email system using Node.js and Nodemailer for real-time updates to buyers and sellers
- Enhanced app performance through lazy loading, Redux, and debounced searches, improving load times by 30%

### Education Mentor

January 2024 - February 2024

UCSD Create

San Diego, CA

- Conducted educational visits to K-12 schools, teaching and mentoring 60+ students on foundational coding concepts
- Introduced students to interactive programming exercises and led them through hands-on learning experiences

## PROJECTS

### Developer's Journal | HTML/CSS, Javascript, Git, Agile

April 2024 - June 2024

- Collaborated in a team of 9 to develop a Developer's Journal using HTML, CSS, and JavaScript, following Agile practices
- Designed the layout and visual elements in Figma, ensuring a clean and intuitive interface for users
- Managed CI/CD pipeline (Github Actions), ensuring code is properly formatted and linted (ESLint, Prettier), and deployed
- Performed E2E testing with Puppeteer and Jest to validate functionality through user simulations

### Gradescope Schedule Syncer | Flask, HTML/CSS

April 2024

- Built a full-stack web app with HTML/CSS and the Gradescope API to sync all courses and assignments into one layout
- Utilized Flask for backend processing to handle API requests and ensure efficient data retrieval
- Added export functionality for users to download schedule data as a .csv for easy Google Calendar integration

### Calories Tracker | MongoDB, Express.js, React, Node.js

September 2023 - January 2024

- Worked in a team of 4 to develop a full-stack web app, allowing users to track calorie intake and manage food entries
- Built the front-end with React, creating dynamic interfaces and managing state for a responsive experience
- Developed the back-end of the app using Node.js and Express.js, handling API requests and managing server-side logic
- Designed and implemented MongoDB schemas to efficiently store and retrieve user data and food information

## TECHNICAL SKILLS

**Languages:** Python, Java, HTML/CSS, JavaScript, TypeScript, C, C++, Assembly, SQL

**Libraries/Frameworks:** Flask, Node.js, Express.js, React, TensorFlow, Keras, OpenCV, scikit-learn, NumPy

**Tools:** Git/GitHub, VS Code, VIM, Google Colab, JUnit, Figma, Postman, Prisma, Firebase