

Eric Ngo

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Education

University of California, San Diego

Bachelor of Science in Mathematics – Computer Science

Minor in Cognitive Science

GPA: 3.53/4.0

Sep 2017 – Dec 2021

San Diego, CA

Experience

Qualcomm Institute - UC San Diego Division of Calit2

Undergraduate Research Assistant & Software Engineer

June 2019 – Current

San Diego, CA

- Co-authored a research publication, titled “Smartphone Telemedicine: A Novel Workflow for Creating Prosthetic Sockets Using Semi-Automated Photogrammetry”.
- Developed an Android Application with Java to stream and filter a phone’s accelerometer and magnetometer sensor data to carry out a capture sequence of photos in a 360 field around an object.
- Engineered a pipeline to store and send images to the cloud using Firebase Authentication REST API.
- Achieved submillimeter accuracy and precision in 3D models generated from photos captured with application.

UC San Diego Computer Science and Engineering Department Tutor

Data Structures & Software Engineering Tutor

Jan 2020 – Current

San Diego, CA

- Facilitated problem solving and debugging by enforcing the use of debugging tools such as GDB, JDB, and Valgrind.
- Reinforced the concept of object-oriented design and aided students in understanding various data structures.
- Oversaw weekly labs that introduced new software tools to students such as GitHub, React, Docker, AWS, Linux, etc.
- Lead weekly office hours to help students learn web technologies including HTML, CSS, JavaScript, React.js, and more.

Engineers Without Borders - UC San Diego

Project Lead & Full-Stack Engineer

September 2019 – Current

San Diego, CA

- Formed a team of 8 undergraduate engineers to spearhead a local online educational outreach platform.
- Introduced the importance of Agile Development and organized weekly stand-up meetings with weekly goals.
- Taught effective Python workflows by incorporating virtual environments and GitHub for version control.
- Leveraged the Django framework to bootstrap a full-stack web application with a PostgreSQL and Heroku Back End.

Projects

RetroHub

Aug 2020 – Sep 2020

- Developed a mobile-first, user friendly web application to view a GitHub profile in a Retro themed wrapper!
- Leveraged Github REST API with numerous JavaScript libraries for rich data visualization in a responsive design.
- Designed wireframes with Adobe XD to strengthen UI/UX skills, developed and styled with React Front end and CSS preprocessor, SASS, with a Node.js Back end, and deployed on the Heroku Platform.

ericngo.me

Aug 2020 - Sep 2020

- First iteration of my personal website built with the Front-end Framework React and styled with SASS and CSS Flexbox.
- Designed wireframes in Adobe XD, and developed with a fully responsive, mobile-first design with CSS Media Queries.
- Developed with heavy use of JavaScript, CSS (SASS), HTML, and various Javascript and CSS libraries to create an adaptive user interface, suitable for all devices!

NoteKeeper

Jul 2020 - Aug 2020

- Built a full stack web application (mainly with JavaScript) with a responsive design to mobilize online note taking.
- Leveraged a React frontend to deploy reusable components, with a Node.js backend that used Express.js for routing.
- Organized a NoSQL database with MongoDB to utilize local cookies/sessions which allowed for secure account creation and user specific notes.