

Matthew Ngo

☎ (714) 362-1914
✉ matthewngo98@gmail.com
🌐 <https://matt-ngo.com/>

Work Experience

Software Engineer Intern / ICU Medical / January 2021 – May 2021

- Developed a full-stack web application with PHP, Laravel, MySQL, and Bootstrap to upload, parse, and analyze logs generated by Cogent™ Hemodynamic Monitoring System

Education

University Of California, Santa Cruz

September 2019 – June 2021

Bachelor of Science in Computer Science

GPA: 3.83/4.0

- **Honors:** Magna Cum Laude, Honors in The Major, Dean's List
- **Relevant Courses:** Web Applications (HTML, CSS, JS, npm, React, Material UI, PostgreSQL), Database Systems (PostgreSQL, Python, psycopg2), Computer Systems Design (C), Distributed Systems (Python, Flask, Docker), Computer Architecture

Orange Coast College

August 2016 – May 2019

Associate of Science in Computer Programming, Associate of Science in Mathematics

GPA: 3.9/4.0

Skills

Stack

- **Front End:** React JS, HTML, CSS, jQuery, Bootstrap, Material UI
- **Back End:** Node JS, Express, OpenAPI, Laravel
- **Databases:** MongoDB, PostgreSQL, MySQL
- **Testing Frameworks:** Jest, Puppeteer, SuperTest

Other Languages:

- C++, C, JavaScript, Python, PHP, Java

Technologies

- Unix, Git, VirtualBox, Docker

SDLC

- Agile, SCRUM

Graphic Design

- Skilled with Adobe Illustrator and Photoshop

Projects

Full-Stack Email Browser

CSE 183: Web Applications

- Single page, Responsive web app with RESTful route validation and multi-user authentication supported using JSON Web Tokens
- Developed with REACT, Material UI, Axios, OpenAPI, Node.js, Express, PostgreSQL

Multithreaded HTTP Server & Load Balancer

CSE 130: Computer Systems Design

- HTTP Server responds to GET, PUT, and HEAD requests, with additional logging and health-checking features implemented. In testing, multithreading yielded avg 2.5x speedup compared to original single threaded server.
- Load balancer designed to run in conjunction with multiple instances of HTTP Server to handle accepting concurrent client requests and distribute them over the set of servers. Running the load balancer with just 1 extra server resulted in an average 1.5x speedup when running the test suite.

"CA" Sharded Key-Value Store

CSE138: Distributed Systems

- Partition-tolerant, available, and causally consistent distributed key-value store built with Python, Flask, and Docker
- Guaranteed fault tolerance with replication, eventual consistency via gossip, and causal consistency through vector clocks + causal context JSON objects