Aaron Steinberg

Software Engineer

https://aa.codes
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Education:

University of California — Santa Cruz
Computer Science B.S. — Graduating June 2023

Experience:

Progenabiome
Bioinformatics Software Engineer Intern
2019-2020, Summer 2022
I created a proprietary bioinformatics pipeline to avoid using expensive cloud based, licensed solutions. Using Python and various libraries to parse proprietary data formats, I helped organize, quanitify, visualize, and analyze outputs from lab equipment.

University of California Santa Cruz IT Services
Google Apps SME
2021-present
I write technical documentation, administrate various google apps services, and help train first response technichians.

University of California Santa Cruz IT Services
IT Help Desk Technician
2020-2021
I offered technical support for staff and students at the university using ServiceNow.

University of California Santa Cruz Baskin School of Engineering
Course Grader
Spring 2021
I graded CSE13S, Computer Systems and C Programming. My responsiblities included grading projects, essays, and exams.

Projects and Research:

MediBill
CruzHacks Hackathon First Place Winner
MediBill is a tool to analyze your medical bills. It was made for the CruzHacks 2022 Hackathon. The frontend was done in vue.js and the backend was done using Google Cloud functions. MediBill won the prize for best UI/UX, best use of Google Cloud, and the first place QB3 sposnored prize of $2000 for the healthcare hack category.
Link to the project

A Brief Survey of Data Placement in a Geo-Distributed Storage System using Machine Learning
Authors: Aaron Steinberg and Yash Chhabria
This is a survey paper written for Professor Peter Alvaro's graduate distributed systems class. This research surveys distributed systems that use geo-distributed storage systems for optimal data placement using a machine learning model.
Link to the paper
Link to the class repository

Reverse Proxy Load Balancer
Final Projcect for Principles of Computer Systems Design
Written entirely in POSIX standard C, this load balancer, while rather fundamental, is multi-threaded, consistent, and *almost* fault tolerant. It estimates performance, load, health, of other web servers. It routes and balances requests across these other servers.
This project can only be viewed by request. The repo must be kept private because of plagarism concerns held by the University of California.

Skills:

Programming Languages:
C, C++, C#, Python, Javascript, GO, Haskell, SQL, Bash

Technologies:
Node.js, Express, React, jQuery, GOA, Postgresql, OpenAPI, Heroku, Amazon S3, Google Cloud, Linux

Other Skills:
SCRUM, Teamwork, Public Speaking, Software Testing, Technical Writing, Documenation, Creative Writing, Teaching, Management, Mountain Biking

Course Work:

Computer Science:
Distributed Systems, Full Stack Web Development, Introduction to Software Engineering, Natural Language Processing, Applied Machine Learning, Functional Programming, Principals of Computer System Design, Computer Architecture, Data Strucutures & Algorithms, Computer Systems & C Programming, Computer Systems & Assembly Language, Programming Abstractions in Python, Introduction to Networking, Introduction to Python

Mathematics:
Historical Mathematics, Probability and Statistics, Applied Discrete Mathematics, Linear Algebra, Vector Calculus

Other Fields of Studies:
Microeconomics, Physics, Modern European History, History of the Holocaust, Visual Art History of Africa/Oceana/Americas, Applied Ethics, Rheotric & Inquiry, Global Action, Power & Representation, US History, Spanish