ERIC HERNANDEZ

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EDUCATION

University of California, Santa Cruz | Computer Science B.S.   **Expected: Jun. 2023**

GPA: 3.89
Honors: Intel Undergraduate SHPE Scholarship (2020), UC Regents Scholarship (2019), 4x Dean's Honors
Relevant Courses: Data Structures and Algorithms, Computer Systems Design, Foundations of Programming
Languages, Compiler Design [Graduate Level], Intro to Software Engineering, Full Stack Web Development I, II

EXPERIENCE

UC Santa Cruz ITS Department | Student Web Developer   Jan. 2023 - Current
- Collaborating on a web application that will allow students and faculty to submit poster designs and complete transactions for poster prints
- Assign appropriate members from the software engineering team to customer support tickets using ServiceNow

UC Santa Cruz Baskin Engineering | Group Tutor   Apr. 2021 - Current
- Classes tutored: Computer Systems & C Programming (2 yr), Computer System Design (1 yr)
- Helped ~70+ students in group sessions over the past two years to improve their grades and master course material
- Communicate tutoring logistics with students and collaborate with teaching staff over Discord, Piazza, and Slack

NVIDIA Corporation | Software Engineer Intern   Jun. 2021 - Aug. 2021
- Collaborated on a Code Review Framework in Python for detecting security and styling defects in a Perforce changelist, which aimed to clean my team's (25+ people) codebase
- Lead the implementation of the Code Review Framework's main runner, which parses command line arguments, loads configuration files, runs checkers, and filters results as JSON
- Independently developed a Swarm accessor library in Python using the requests library and the Swarm REST API

PROJECTS

Capstone Project | TypeScript, Next.js, Express.js, GraphQL, PostgreSQL, Joy UI | baskin.app
- Collaborated with five other students to develop and containerize a full-stack marketplace web application that pushed my software development skills beyond the scope of past individual projects
- Utilized GitHub for version control, GitHub Actions to provide continuous integration for our project, and a GitHub Project Board to assign and track issues/tasks
- Implemented a messages microservice in the backend that utilizes an Express.js server and exposes an internal GraphQL API backed by a PostgreSQL database
- Designed and implemented the frontend user messages page and other components that communicate with the messages microservice using React.js, Joy UI, and Next.js routing
- Assisted in making pages and components of our web application responsive to mobile view and creating a Moderator App that automatically flags posts that violate our community guidelines

Multi-threaded HTTP Server | C, Unix, POSIX Threads | github.com/eric-hdez/httpserver
- Designed and implemented a multi–threaded HTTP server in C that serves atomic GET, PUT, and APPEND requests
- Implemented asynchronous IO by using an instance of epoll to monitor the listening socket and client connections for events, similar to nginx, to minimize the impact of DoS and DDoS attacks.
- Designing an LRU caching system that will reduce backend load and latency on commonly requested resources

SKILLS

Languages: C, C++, Python, TypeScript, JavaScript, SQL, GraphQL, CSS
Web Technologies/Services: React.js, Node.js, Next.js, Express.js, Microservice Architecture, REST/GraphQL APIs
Other: PostgreSQL, Git, Github, BitBucket, Unix Command Line, Valgrind, GDB, Docker (containerization), POSIX threads
Leadership: Public speaking, time management, collaboration/ teamwork, bilingual & bi-literate (Spanish & English)

ORGANIZATIONS

Society of Hispanic Professional Engineers UCSC | President
- Acting liaison between SHPE UCSC and: campus organizations, SHPE chapters in Region 1, and industry partners
- Coordinated and oversaw our Giving Day 2022 campaign, which raised ~$4,000 for the benefit of our organization
- Secured sponsorship and partnership with NVIDIA Corporation through the 2022-2023 school year