

Alex N Hernandez Perez

alexhernandezp9115@gmail.com | (760) 604-8624 | [LinkedIn](#) | [Github](#)

EDUCATION

University of California: San Diego, La Jolla, CA

Bachelor of Science Computer Engineering

June 2023

Relevant coursework: Data Structures and Algorithms, Software Engineering, Advanced Digital Design.

SKILLS

- Proficient: Java, Python, C++, Git, Object Oriented Programming
 - Knowledgeable: HTML, CSS, JavaScript/Node.js
 - Some Experience: MySQL, Linux
-

KEY PROJECTS

Nachos Operating System library | April -June 2023 | Java.

Collaborated with a team of 4 members to implement a simplified operating system library called Nachos in Java that provided a platform for simulating and experimenting with operating system concepts and algorithms.

- Implemented a robust system of process management and communication in Java used 10+ system calls that enabled Multiprogramming.
- Integrated memory management techniques such as virtual memory and page replacement algorithms, with 4 pages of 1 KB sized memory.
- Analyzed and designed algorithms closely with team members to ensure compatibility and functionality of the Nachos library, with average 91% passing tests.
- Conducted thorough testing (over 15 +) and debugging in C to ensure stability and correctness.

Frugal Web App | Backend | November 2022 | [Link to Repository](#).

Developed a frugal web application that helps users track expenses and find cost-saving opportunities in the span of 7 weeks, with a team of 10 members.

- Designed and implemented the CI/CD pipeline using GitHub Actions to streamline the software development workflow, using Jest/puppeteer for E2E testing.
- Automated build, runs 3 unit test suites, and deployment processes, improving development efficiency.
- Integrated over 3 code quality checks to maintain high software standards, such as style formats that the team decided on, and linting code to remove mistakes.
- Collaborated closely with the 2 team members to troubleshoot and resolve CI/CD pipeline issues.
- Reported and documented weekly progress updates to 3 team leads, documented key architectural decision records.