Jorge Emanuel Nuñez

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Education

University of California, Berkeley | Berkeley, CA

May 2024

B.S. in Electrical Engineering and Computer Sciences

Relevant Coursework:

Data Structures, Database Systems, Operating Systems, Computer Architecture, Artificial Intelligence, Algorithms, Principles and Techniques of Data Science

Experience

Qualcomm | San Diego

May 2023 - Aug. 2023

Software Engineering Intern

- Conducted in-depth analysis of software systems, identifying inefficiencies and proposing optimization strategies, resulting in a 15% improvement in code execution efficiency for the Qualcomm Oryon CPU project.
- Assisted in the refinement of software development processes by actively participating in code reviews, debugging sessions, and providing valuable feedback, contributing to a more streamlined and error-resistant development pipeline.

Algorithms & Computing For Education Lab | UC Berkeley

Feb. 2021 - May 2024

Research and Development Assistant

- Spearheaded a cheat-detection software written in Python.
- Implemented an auto-grader in Python which will be used at scale for 200+ students.
- Contributed to the open-source software PrairieLearn, enhancing its capabilities for computer-based testing and assessment.

Projects

Pinto's Operating System

CS162: Operating Systems | UC Berkeley

Fall 2023

• Implemented user program support, system call interface, priority thread scheduling, and cached file system in C of the Pintos Operating System in a team of 4.

Database Project

CS 186: Database systems | UC Berkeley

Spring 2022

- Implemented a relational database system in Java that supports concurrency, and recovery.
- Created a B+ Tree class that handled indexing of each record by storing references to records.

CS61Classify

CS 61C: Computer Architecture | UC Berkeley

Fall 2022

- Developed RISC-V assembly code for classifying handwritten digits, and implementing key concepts such as calling conventions, heap usage, file interactions, and test writing.
- Conducted performance analysis and optimization to ensure efficient execution, collaborating with peers to debug and refine the code for high-quality contributions..

Leadership

Algorithms for Computing Education Lab | UC Berkeley

Sep. 2021 - May 2023

Research and Development Project Manager

- Oversaw a cohort of 10 student researchers in Developing Computer-based software for the introductory computer science course at UC Berkeley.
- Coordinated a team of 10 students to design and implement an Auto-Grader.

Activities

Participant, Google Computer Science Research Mentorship Program (CSRMP)

Sep. 2021 - Dec. 2022

- Selected for a prestigious mentorship program aimed at advancing research skills in computer science.
- Collaborated with Google engineers and researchers on a project focused on computer science education.
- Gained hands-on experience in understanding the research workflow and submitting academic papers.

Skills

 Python, Java, C/C++, SQL, OCaml, HTML, JavaScript, GitHub, Docker, Jira, Automation Testing, UI Development, Open-Source Development