Wesley Weisenberger

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EDUCATION

University of California, Berkeley

Bachelor of Arts in Computer Science, Minor in Data Science

Expected Graduation: May 2024

GPA: 3.7

Relevant Coursework: Full Stack Development, Data Structures, Database Systems, Computer Architecture, Computer Security, Discrete Math & Probability Theory, Efficient Algorithms & Intractable Problems, Designing Information Devices and Systems, Principles of Data Science, Data Ethics,

Advanced Linux System Administration, Operating Systems (planned), Machine Learning (planned)

WORK EXPERIENCE

Undergraduate Research Apprentice Program

August 2022 - Present

Data Science Student Researcher

- Researching under Professor Johnathan Marshall in the UC Berkeley Legal Studies Department.
- Developed classifiers to identify statistical patterns and anomalies in the Old Bailey Online corpus of criminal cases in London.
- Constructed XML parsers to ensure old, irregular case data was interoperable with Pandas/NumPy.

Open Computing Facility

Fall 2020 - Present

- Maintaining campus computing infrastructure such as web hosting, printing, and computer lab.
- Performing system administration of servers and desktops used by hundreds of students each day.
- Teach various classes on Linux techniques and skills.

PROJECTS

End to End Encrypted File Sharing System - Go

Spring 2023

- Designed and developed an API that allows users to upload, append to, delete, files.
- API also supports secure file sharing between users and revocation of file access.
- Custom suite of tests written to ensure that file integrity and confidentiality were maintained even after any malicious actions taken on the server.

Discord Bot - Python

Spring 2022

- Enabled users to query images from an aggregated search engine, then manipulate, rasterize, or edit said images through text commands and macros.
- Self-hosted Docker environment facilitated error-handling and networking between Python container, search engine, and Linux system used for processing images.

Gitlet - Java Fall 2021

- Custom version control system modeled with functionality modeled after Git.
- Supports file tracking, branching, merging, and remote repositories.
- Implemented custom data structures to enable constant-time file lookup, hashing to handle "diffs" and to prevent file collisions, and merge conflict handling.

Weather Station - C, HTML, Javascript

Spring 2021

- Constructed a custom battery-powered Arduino weather monitoring circuit system which pushed data to a database on a locally hosted Linux web server, accessible to the internet.
- Self-hosted website to display and visualize weather data and trends. Website also gave users the ability to pull more recent weather measurements from the device.

TECHNICAL SKILLS

Languages: Python, Java, C, Go, React, Javascript/NodeJS, HTML, CSS, SQL, PHP, Swift, RISC-V Assembly Tools: Git, Linux, Docker, NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, LATEX, MongoDB, RegEx

Updated: 10/31/23