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

Relevant Coursework: Structure and Interpretation of Computer Programs, Data Structures, Machine Structures, Discrete Math and Probability Theory, Designing Information Devices and Systems I&II, Database Systems, Computer Security, Foundations of Data Science, Principles and Techniques of Data Science, Human Contexts and Ethics of Data, Advanced Linux System Administration

PROJECTS

Undergraduate Research Apprentice Program

Spring 2023 – Present

Data Science Student Researcher

- Researching under Professor Johnathan Marshall in the UC Berkeley Legal Studies Department.
- Using text data mining to understand patterns and changes in 18th-19th Century criminal law.
- Constructing RegEx classifiers to impute class on 16,000+ Old Bailey Online corpus criminal cases.

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.

Enigma Machine – Java

Fall 2021

- Developed an emulator of a WW2 Enigma Machine that could encrypt and decrypt text using cryptographically accurate implementations.
- Object-Oriented design made use of custom data structures representing physical rotors, plugboard, and alphabets of actual machine to enable clean code, programmatic readability, and modularity.

Discord Bot - Python, MongoDB

Spring 2022

- Built and maintained Discord bot to provide statistics and helpful functions to Discord users in a server, leveraging databases to provide fast compute times.
- Self-hosted on a Raspberry Pi, utilizing an updating scheme and systemd exception/error handling.

Weather Station - C, HTML, Javascript

Spring 2021

- Designed 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 give users the ability to pull more recent weather measurements from the device.

SKILLS

Languages: Python, Java, C, Golang, SQL, Assembly, HTML, CSS, Javascript, PHP, Swift

Tools: Git, NumPy, Pandas, Matplotlib, Seaborn, Scikit-learn, Docker, LATEX, GDB, Linux Systems & Servers, MongoDB, RegEx, XArray

EXTRACURRICULARS

Eagle Scout 2009 - 2020

- Demonstrated leadership, logistical, and communication expertise by coordinating multiple backpacking trips of up to 14 days and 100 miles.
- Facilitated meetings of 30+ Scouts, organized activites and taught practical and wilderness skills.