Daniel Hodde

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Education

University of California, Berkeley **August 2021 – May 2025**
B.A. in Computer Science / B.A. in Cognitive Science & Minor in Data Science *Berkeley, CA*
GPA: 3.42

Relevant Coursework: Artificial Intelligence, Database Systems, Operating Systems and System Programming, Machine Structures, Structure of Computer Programs, Data Structures, Information Systems and Devices, Optimization Models, Principles and Techniques of Data Science, Linguistic Science, Cognitive Science

Professional Experience

Amazon Web Services (AWS) **May 2024 – August 2024**
Software Development Engineer Intern *Seattle, WA*

- Developed a simulation testing tool in **Java** for AWS E-Invoicing that drives the mitigation of **$94MM USD** annually in government compliance failures thereby reducing issues contributing to **63%** of teams operational load.
- Designed comprehensive and generalizable obfuscation strategy that enabled the team to use customer data for more accurate testing without compromising confidentiality by covering up sensitive fields, ensuring security and expanding scope of testing tool.

Viola Walk Home **September 2023 – December 2023**
Software Engineer Intern *Berkeley, CA*

- Produced and maintained robust webscraping scripts in **Python** using **Beautiful Soup** and **Selenium** for gathering mapping points of interest (POI) and use in research and development.
- Implemented mapping and routing features to guide users to safe POIs and away from high crime areas, for a mobile application using **Mapbox, Flutter, Firebase and JavaScript** and delivered for beta launch.

Optum **June 2023 – August 2023**
Software Engineer Intern *Irvine, CA*

- Employed multiprocessing, multithreading and distributed programming techniques in **Python** to merge **tens of millions** of medicaid member eligibility information in minutes, achieving a **6.5x speedup** in processing time.
- Migrated away from external dependencies which saved company **$60,000 per year** and improved speed of delivery to vendors.
- Created an intelligent testing framework to dynamically create test data sets, with which several implementations were tested and statistics were calculated to compare improvements in processing speed.

Projects

PintOS **April 2024**

- Designed and built an operating system using **C and x86** that supports user programs, process control, complex file operations, floating point operations and multi-threading.

Version Control System **April 2022**

- Designed and implemented a **Java** based version of Git, using principles of **object oriented design** that included 13 of the most common commands.
- Utilized serialization and graphs to store and update file versions and branches as well as handle merges.

Enigma **February 2022**

- Created a digital version of the Enigma machine in **Java** that is capable of **encrypting and decrypting** text by passing through several rotors, reflectors and pawls, based on user determined settings.

Technical Skills

Languages: Java, Python, C/C++, Rust, JavaScript, HTML/CSS, x86, RISC-V, Scheme
Tools: SQL, NoSQL, Git, Postman, Flutter, Firebase, Pandas, NumPy, ScikitLearn, Mapbox, AWS(ECS, S3, Lambda, Dynamodb, CloudWatch, SQS), MongoDB, LaTeX

Awards

- BlackRock Prize - CalHacks 9.0
- United States Davis Merit Scholar
- College Board National Recognition Program Rural and Small Town Scholar