An Le

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Education

University of California, Berkeley — Berkeley, CA
Bachelor of Arts in Computer Science — *Aug. 2020 – May 2024*

Relevant Coursework: Data Structures, Computer Architecture, Algorithms, Databases, Computer Security, Convex Optimization, Machine Learning, Compilers, Operating Systems, Networking Protocols, Computer Graphics

Experience

Software Engineer — Aug. 2024 – Present
IXL Learning — *San Mateo, CA*

- Starting August 2024, team to be determined

Academic Intern, CS 61A — Sep. 2022 – Dec. 2022
UC Berkeley EECS — *Berkeley, CA*

- Lab assistant for CS 61A, the introductory programming course at UC Berkeley.
- Provided conceptual and debugging assistance to a section of 20 - 30 students on assignments that develop programming skills in Python, Scheme, and SQLite.

Academic Intern, CS 61B — Sep. 2021 – Dec. 2021
UC Berkeley EECS — *Berkeley, CA*

- Lab assistant for CS 61B, the data structures course at UC Berkeley.
- Provided conceptual and debugging assistance to a section of 20 - 30 students on assignments that develop knowledge of basic data structures, Java programming, git version control, and basic algorithms.

Projects

Encrypted File Sharing System | *Go, Git*

- Leveraged computer security principles to build a secure file sharing system in Go.
- Developed client API that uses encryption schemes such as AES-CTR and public key encryption to securely share and store files.
- Used other tools such as message authentication codes and digital signatures to add integrity and authenticity for file sharing and storage.

PintOS | *C, x86, Git*

- Worked in a team of 4 to develop a miniature operating system in C.
- Implemented system calls to support executing user programs, multi-threading, and file operations.
- Developed a strict priority scheduler for multi-threaded programs.
- Implemented a file system based on FFS (Fast File System) with a buffer cache to optimize file I/O.
- Wrote detailed design documents to help solidify understanding of project goals and implementation.

BearMaps | *Java, Git, JUnit*

- Created backend for a mapping API of Berkeley, CA.
- Added rasterization API that generates a visual map based on the user's query.
- Built a router that calculates the shortest path between two locations to be displayed to the user.
- Used a Trie to add autocomplete feature, which returns locations that the user is most likely looking for from a partial query.

Technical Skills

Languages: Java, Python, C/C++, SQL, JavaScript, HTML/CSS, Go (Programming Language)
Frameworks/Tools/Libraries: React, JUnit, Git, VS Code, IntelliJ, NumPy, GDB