JOHNSON NGUYEN

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EDUCATION

University of California, Berkeley **Expected: May 2024**
Bachelor of Arts in Data Science (Business and Industrial Analytics), Minor in Computer Science

- **Relevant Coursework:** Algorithms, Computer Programs, Data Structures, Data Science Foundations, Information Devices and Systems I & II, Machine Structures, Calculus I & II, Multivariable Calculus, Discrete Mathematics & Probability Theory, Elementary Statistics, Macroeconomic Principles, Microeconomic Theory
- **Current Coursework:** Artificial Intelligence, Data Science Principles, Computer Security

WORK EXPERIENCE

Rocket Lawyer Spring 2023
Software Development Engineer Intern *San Francisco, CA*

- Incoming Software Development Engineer Intern in the Quality Assurance & Development Team

BAE Systems Incorporated May 2022 - August 2022
Software Engineer Intern, Armored Multi-Purpose Vehicle (AMPV) Team *San Jose, CA*

- Worked in Testing and Integration developing and testing sequences using Python, C++, Linux Shell Scripting, and other tools and frameworks
- Developed a multi-threaded full-stack application for SSH/SCP operations and internal tooling with a GUI, integrated into a NI Teststand for simulating AMPV conditions
- Performed MariaDB integrations into third-party applications and AMPV software for asynchronous and synchronous requests for test logs, maintained with Grafana LogQL
- Employed unit and regression testing for dry run outputs containerized in Docker, shipped to data visualization tools

UC Berkeley EECS Department August 2021 - Present
CS61A (Computer Programs) Academic Intern *Berkeley, CA*

- Assist 30+ students in labs with debugging and reinforcing programming concepts
- Give guidance to students on assignments, projects, and course material
- Teaching topics include Python object-oriented programming, trees, Scheme, and SQL

PROJECTS

Better UC Irvine Catalog (Ongoing) — Python, HTML/CSS, React

- Developed a simple webscraper/application for the University of California, Irvine course catalog
- Implemented a Python script using Selenium to simulate the catalog websocket and navigate the site, crawling all HTML page source content for class names, availability, professors, etc.
- Parsed metadata using BeautifulSoup and RegEx to convert to a Pandas dataframe, to be packaged to full-stack application for auto-sorting, search, and graphing features

Cryptographic File System — Golang

- Designed and developed a secure file system that supports creating, editing and sharing files between multiples users with support for concurrency across multiple user sessions
- Confidentiality of user accounts and file contents are secured using Argon2 hashing, AES cipher block chaining encryption scheme, HMAC verification, HashKDF encryption, and Public-Key Encryption

Gitlet — Java

- Developed a simple version control system based on Git from scratch
- Designed internal file structures with a SHA-1 hashing storage system to prevent collisions with various features for modifications
- Implemented a constant time lookup storage system for commits across multiple branches using trees
- Features include file tracking, branching, backup commits, merging, and remote usage

TECHNICAL SKILLS

Languages	Java, Python, JavaScript, CSS/HTML, C, Golang, SQL, RISC-V Assembly, Scheme
Tools	Git, LaTeX, Valgrind, NumPy, Scikit-learn, Intel AVX, Matplotlib, RegEx Parsing, Microsoft Office, Selenium Webdriver, Pandas, Jira, Confluence, Grafana, Tkinter, Paramiko