

BRENT FRIEDMAN

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<https://brentfriedman725.github.io/>

EDUCATION

University of California, Berkeley | Berkeley, CA

Expected Graduation May 2025

B.S. - Electrical Engineering and Computer Science

Cumulative GPA: 3.76 / 4.0 (Sp '22 Dean's List)

Relevant Coursework: Data Structures, Algorithms, Machine Structures, Artificial Intelligence, Computer Security, Discrete Mathematics, Probability Theory, Linear Algebra, Multivariable Calculus, Designing Information Devices and Systems

Organizations: Blockchain @ Berkeley, Eta Kappa Nu, Chi Psi Fraternity

SKILLS & TECHNICAL TOOLS

Languages: Python, Java, Javascript, C, SQL, Solidity, HTML/CSS, Scheme

Software/libraries: Git, Node.js, React, Express, PostgreSQL, MongoDB, IntelliJ, Jupyter Notebook, AWS, Heroku, Postman, Async, GraphQL, fastCSV, oauth-server

EXPERIENCE

Academic Intern | UC Berkeley

Jan 2023 - Present

- Teach in-depth concepts in C including pointers, memory management and allocation, and segfault error handling.
- Educate on low-level concepts from RISC-V to bit-level descriptors; analyze students' CPU design optimality.

Software Engineering Intern | CodeMaya

May 2022 - Aug 2022

- Developed production Node.js API server that organizes randomly formatted CSV file data neatly into PostgreSQL database; utilized fastCSV and Async libraries to iterate through CSV files and Heroku for deployment.
- Formed SQL queries that dynamized default account values on a large-codebase web application at point of registration.
- Engineered a full-stack web application that filters cars by make, model and trim; includes JWT authorized admin route for adding car data in real-time using GraphQL.

Computer Science Tutor | Personal

Jun 2019 - May 2022

- Taught peer students programming fundamentals, algorithms, and project design in Python, Java, and C 3-4 times per week; tutoring services were recommended to struggling students by AP Computer Science teacher.
- Created AP Computer Science A prep course for 15 students, of which 86% achieved 5's on the AP exam.

PROJECTS

Gitlet | Java

- Implemented a version-control system for local and remote repositories that functions exactly as Git does.
- Designed project with treemap data structure and concepts of persistence, serialization, hashing, and file manipulation.

AI Ataxx Game | Java

- Recreated Ataxx arcade game with GUI by incorporating stacks and arraylists with optimized time complexity.
- Created strong AI for single-player mode by using game trees and alpha-beta pruning algorithm.

LEADERSHIP

Treasurer | Chi Psi Fraternity

Jan 2023 - Present

- Manage a budget of over \$200,000 dollars for our 56 members with QuickBooks and Microsoft Excel.
- Work closely with Chi Psi National and Berkeley Holdings to analyze rental contracts, tax documents, and contractor fees.

Co-founder and President | Equipment for Everyone

Sep 2019 - May 2021

- Non-Profit Organization that donated over 5,000 pieces of sports equipment to low-income students around the Bay Area.