Brandon Wong

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Education

University of California, Berkeley Expected May 2025
Bachelor of Arts in Computer Science GPA: 4.0

- COURSEWORK: Data Structures, Efficient Algorithms, Data Science, Linux Systems Administration, Linear Algebra, Computer Architecture
- SCHOLARSHIPS: HSF Scholar, Chin Scholar, Rosenhouse Scholar, Elks National Foundation Scholar

Technical Skills

PROGRAMMING: Java, Python, HTML/CSS/JS, Bash/Shell, Node, C++, Rust
OTHER: Unix, React, NumPy, JUnit Testing, TensorFlow, Git, Intellij, Neovim, VSCode, Google Colab, CMake
MISC: Adobe Illustrator, Adobe Premier, FL Studio, Blender

Work Experience

UC Berkeley Data Science Department Jan 2023 – Present
Student Researcher

- Conducted in-depth analysis of codebases, including Stable Diffusion, to explore and evaluate the ethical considerations and potential applications of emerging technologies in generative AI
- Explored the technical foundations of machine learning and artificial intelligence, including neural networks, backpropagation, and diffusion techniques

Computer Science Mentors Jan 23 – Present
Junior Mentor – CS 70 (Discrete Math and Probability Theory)

- Prepared mini-lectures, question walk-throughs, and midterm review sessions, improving students' engagement with course material and test-taking abilities
- Volunteered to lead small discussion sections of 6 students to supplement the course staff's teaching efforts

Readable Sep 22 – Dec 22
Software Developer

- Collaborated with a team of 5 to develop a solution to improve focus in digital reading through iterative design
- Implemented an interface to traverse a website's DOM, allowing for intuitive shifting of a blur viewport
- Conducted interviews with users to gain feedback on the UI/UX in order to formulate actionable improvements
- Concept rated an average of 9.3/10 by peers in Berkeley's Fall 2022 Jacobs Innovation and Design Showcase

UC Berkeley EECS Department Jan 22 – May 22
Academic Intern – CS 10 (Beauty and Joy of Computing)

- Facilitated weekly lab sessions of 20+ students and taught debugging techniques, providing support that allowed students to better debug projects independently
- Taught basic computing principles in Snap! and Python (Recursion, Algorithmic Complexity, OOP, etc.)

Pioneers In Engineering Sep 22 – Present
Electrical Engineer

- Volunteered in the club's Fall Robotics Competition, promoting STEM education for 700+ students in 30+ under-served Bay Area high schools
- Designed the PCB for a keyboard macropad to learn the basics of KiCad circuit design software and soldering

Projects

Gitlet | *Java* Jul 2022

- Mini recreation of Git version control system (13 Git commands); built from scratch using Java and various Data Structures with an emphasis on readable code and design; created additional bash scripts for testing
- Uses serialization for persistence, utilizes algorithms to optimize commands for specified big O runtimes

Build Your Own World | *Java* Jul 2022

- A program that generates 2D playable worlds; built in Java using a modified version of a tile rendering engine
- Use path-finding algorithms and K-D trees to generate pseudo-random worlds with similar structures and interactions
- Uses serialization to persist world states and settings