

# Brandon Wong

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## Education

### University of California, Berkeley

Expected May 25

*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

**Languages:** Java, Python, HTML/CSS/JS, Bash/Shell, Node, C++, Rust

**Libraries:** React, Express, NumPy, Pandas, PyTorch

**Tools:** Unix, Git, Google Colab, CMake, NeoVim, Visual Studio Code, LaTeX

## Work Experience

### UC Berkeley Data Science Department

Jan 23 – 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

### 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; topics included recursion, algorithmic complexity, OOP, etc

## Extracurricular Experience

### Computer Science Mentors

Jan 23 – Present

*Junior Mentor – CS 70 (Discrete Math and Probability Theory)*

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

### 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

### Readable | JS, Node

Sep 22 – Dec 22

- 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

### Gitlet | Java

Jul 22 – Jul 22

- Coded a mini recreation of Git version control system from scratch using various Data Structures with an emphasis on readable code and clear design documentation
- Utilized various Unix system tools to create additional bash scripts for testing
- Implemented algorithms to optimize commands for specified big O runtimes

### Build Your Own World | Java

Jul 22 – Jul 22

- Developed a game that generates 2D playable worlds from scratch using a modified tile rendering engine
- Implemented path-finding algorithms and K-D trees for pseudo-random generation of worlds and structures
- Utilized serialization to persist, store, and load world states and game settings