

# Ben Cuan

Hello! I am a student software developer pursuing an education in Computer Science and Psychology at UC Berkeley. Recently, I've been involved in teaching, full stack engineering, Linux, and game development.



[contact@bencuan.me](mailto:contact@bencuan.me)



<https://bencuan.me>



[github.com/64bitpandas](https://github.com/64bitpandas)



[linkedin.com/in/bencuan](https://linkedin.com/in/bencuan)

## Education

### University of California- Berkeley

August 2019 to May 2023 | Berkeley, CA | GPA: 3.95

Current 3rd year (Junior) undergraduate at UC Berkeley double majoring in Computer Science and Psychology.

> Selected courses: Data Structures (CS 61B), Data Science (Data 100), Probability (Stat 140), Efficient Algorithms (CS 170)

> In Progress: Operating Systems (CS 162), Computer Security (CS 161)

**Organizations:** Open Computing Facility (OCF), CS Mentors (CSM), Bay Area Scientists in Schools (BASIS)

## Experience

### CS 61A - Undergraduate Student Instructor

August 2020 to Present | UC Berkeley | [cs61a.org](https://cs61a.org)

- 2-time uGSI/Teaching Assistant (Summer 2021-), 2-time course tutor (2020-21) for CS61A (Structure and Interpretation of Computer Programs), serving ~1500 students per semester through introductory Python, Scheme, SQL
- Led discussion sections in problem solving every week for ~20 students; developed and reviewed course content
- Other teaching experience at UC Berkeley includes tutoring via CS370 (CS pedagogy course) and CS Mentors (CS61B, Data Structures in Java)

### Open Computing Facility - DeCal Head Facilitator / Staff Member

August 2019 to Present | UC Berkeley | [decal.ocf.io](https://decal.ocf.io)

- Head Facilitator for faculty-sponsored, student-run course on Linux System Administration (CS 198-008)
- Developed lab materials for topics including: shell scripting, config management, Linux post-installation
- Managed course infrastructure to support 100 students per semester: updated website templating via Jekyll, VM provisioning
- As OCF staff: implemented site type checking, improved Prometheus server monitoring via Grafana visualizations

### UC Berkeley ATDP - Instructional Assistant

May 2021 to August 2021 | Berkeley, CA | [atdp.berkeley.edu](https://atdp.berkeley.edu)

- Co-led development and instruction of advanced data structures course for 20+ high school students
- Created instructional homework assignments and projects from scratch in Java, including a maze generator/solver using graph traversal and Dijkstra's/A\* algorithms
- Developed JUnit testing suites for autograding assignment submissions

## Projects > For more information, please visit my site at [bencuan.me](https://bencuan.me)

### Trackversal | [trackversal.com](https://trackversal.com)

Co-founder and full stack developer for the Trackversal project, a highly affordable hybrid Bluetooth-GPS asset tracking device. Created the mobile app (React Native) and backend infrastructure (Node.js, MongoDB). Backed by the CalHacks Fellowship and Berkeley Skydeck Hotdesk programs for pre-seed startup support.

### Hackathon Projects | <https://devpost.com/64bitpandas>

Attended 8+ hackathons, employing rapid prototyping, design thinking, and various technologies including Arduino, WebVR, Heroku, Netlify, Docker. Won 1st place with CarrotCane, a DIY cane attachment for automated collision detection.

### Frontend Web Development | [bencuan.me](https://bencuan.me)

Primary contributor to websites for Hexcaliber ([hexcaliber.dev](https://hexcaliber.dev)) and BananiumLabs ([bananium.com](https://bananium.com)); contributor for the OCF website ([ocf.io](https://ocf.io)). Involved in major refactor efforts, including reducing BananiumLabs site load time by >3 seconds.

## Skills

**Languages:** HTML/CSS/Sass/JS/Typescript, Python, SQL, Bash, C#, Java, Scheme

**Frameworks/Technologies:** Node.js, React, Gatsby, Unity, NumPy, GNU/Linux, MongoDB, Socket.io, Jest