

Curtis Hu

🏠 [curtisjhu.github.io](https://github.com/curtisjhu) ✉️ curtisjhu@berkeley.edu  [curtisjhu](#)  [curtisjhu](#)

EDUCATION

University of California, Berkeley

Berkeley, California

B.A. Computer Science, B.A. Physics; Major GPA: 3.85

2022-2026

Relevant Coursework: Data Structures, Electricity and Magnetism, Discrete Mathematics, Linear Algebra, Differential Equations, Optics, Quantum Mechanics, Intro to Artificial Intelligence, Intro to Machine Learning

EXPERIENCE

Deep Learning in Hadronic Interactions (Large Hadron Collider) Lawrence Berkeley National Laboratory
Professor Haichen Wang and Mentor Dr. Xiangyang Yu Aug 2023 - Present

- **Model trainings:** Ran experiments on the NERSC supercomputer to train tensorflow models (Conditional Normalizing Flow) predicting collision events at the Large Hadron Collider as part of the ATLAS experiment. Reported, documented the error rate decays and model performance in respect to traditional Monte Carlo generation methods for a publishing paper.
- **Data Analysis:** Used Monte Carlo generation under the Geant4 simulation software to gather dataset, preprocess data for leading particle energy and particle counts.

Teaching Assistant

Berkeley, CA

Computational Structures in Data Science, Data 88C

Sept 2023 - Present

- **Host Office Hours:** Prepare and host office hours for students to come and ask questions regarding the course material
- **Lead Discussions:** Lead some discussions guiding through problems and thought processes.

Firmware, Simulations Engineer

Berkeley, CA

Space Enterprise at Berkeley

Sept 2022 - Present

- **Telemetry Firmware:** Developed the C/C++ logic needed to send packets from LAD8 rocket over radio frequency to the ground station.
- **Dashboard Firmware:** Developed an interface for interacting the control sequence of the E1 rocket launch and reading telemetry in ReactJs and ElectronJs.
- **Simulations:** Iterated simulations of rocket predictions using Python and collected data. Provided apogee predictions from our LADx series of test rockets for E1 rocket.

Network Engineer

Part-Time

Student Affairs Information Technology

May - August 2023

- **Worked with our Senior Network Engineers:** Collaborated with senior engineers with troubleshooting connection issues in a certain location. When solution was found, I was tasked with fixing the physical problems in field.
- **Migrated Cisco Switches to Juniper EX3400 Switches:** Removed and replaced Cisco Switches with Juniper switches. Debugged and troubleshooted new Juniper EX3400 Switches to new software.

PROJECTS

Mathematical Animations and Videos Content Creation funnyscar.com

- **Over 8k monthly viewers:** Created mathematical animations like “Riemann Surfaces” or “k-means algorithm visualized” with over 8k monthly views.
- **Collaborations with professors:** Collaboration with professors and graduate student to create content used by thousands of other students.

Chrome Extension with 3500+ Users [DEMO](#)

- **Software production:** Built a Chrome Extension called “Extention Player for Spotify” extension that allows you to control your Spotify playback
- **Published product serving over 4000+ users:** Published with 4000+ current downloads and about 450 installations per month since deployment. Maintained around 2.39K weekly users and an organic 5 star rating.
- **Skills:** API REST, JS

SKILLS SUMMARY

Proficient Python, PyTorch, Numpy, C/C++, JavaScript, Typescript, Java, Node.js, MySQL, React, Express, Git, Jupyter, Unix/Bash, HTML, CSS, Matlab, Huggingface, TensorFlow, NumPy, OpenCV, Node.js

Previous Experience Ruby, Rust, RubyOnRails, Flask.

HONORS AND AWARDS

- Dr. David and Ms. Brenda Muh Scholarship Award - May, 2022
- Durham Scholarship Award - May, 2022