Curtis Hu

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EDUCATION

University of California, Berkeley

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

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

Lawrence Livermore National Laborabotry Computational Physics Intern LLNL Berkeley May 2024 - September 2024 • Model simulations: Running simulations of the award winning Laser Hohlraums at the National Ignition Facility.

- Refining the simulations such that others at a global can simulate laser hohlraums created at the NIF facility.
- Data Analysis: Analyzed data produced from the multiphysics code to the actual experimental data to ensure accuracy of our models.

Network Engineering Team Lead

Gary Thomas and Andrew Sherman

- May 2023 Present
- Coordinating a team: Lead a network engineers paid under the University's IT department to solve and troubleshoot customer's tasks. Including managing workflow of team tasks, creating team cohesiveness, and communicating our goals for the team.
- Communication with staff: Communicate with other team leads and superiors about the underlying workflow and larger picture for the team. We gauge if we are on track for our long term goals.

Course Staff Tutor

Intro to Artificial Intelligence CS 188

- Office Hours: Prepare and host office hours for students to come and ask questions regarding the course material
- **Teaching** : Answer questions, create teaching materials, grade problems, teach small groups.

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.

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 6000+ Users <u>DEMO</u>

- Software production: Built a Chrome Extension called "Extension 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, 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

Student Affairs Information Technology

Berkeley, California

2022-2026

Berkeley, CA Sept 2023 - Present