

BILL SHAO

Mountain View · [linkedin.com/in/bill-shao](https://www.linkedin.com/in/bill-shao) · billshao@berkeley.edu · bill-shao.github.io/portfolio

EDUCATION

University of California - Berkeley

Berkeley, CA

BA Computer Science, Linguistics *GPA: 3.9*

August 2021 - May 2025

Coursework: Structure and Interpretation of Computer Programs, Designing Information Devices and Systems I, Data Structures, Designing Information Devices and Systems II

WORK EXPERIENCE

Horizon Research (Princeton)

Mathematical Research Intern

2021 - 2022

- Worked under Princeton Ph.D. Candidate Angelina Wang in learning CNN systems with Pytorch during a 5-week long research program.
- Explored 3 learning and dynamic feedback methods to bias correction in Neural Networks using UTK, FairFace datasets. Practiced with numpy, pandas, regex, matplotlib.
- Practiced visual design skills and data management to create visual depictions of machine learning findings.

Equal Opportunity Technology

Mountain View, CA

Instructor and Lead Technical Engineer

2018 - 2020

- Spearheaded testing and integration of Snipe-it, Linux Database system for 200+ organization computers. Optimized system managing time by 30+ hours per refurbishing phase.
- Developed algorithmic curriculum lectures and videos, taught 25 students in basic to advanced C++ and Java.
- Helped to organize workshop sessions of 40+ community members on hardware and software basics.

Los Altos Algorithms

Los Altos, CA

Tutor

2019 - 2021

- Guided 20+ students in USACO Bronze and Silver concepts with C++. Taught Lists, Stacks, Trees, Graphs data structures.
- Held 1-1 tutor sessions on basic Dynamic Programming and Data Structures concepts such as Dijkstras, bellman ford, etc.
- Helped 15+ students advance divisions in USACO Bronze to Silver.

iDTech

Nvidia Online Teen Academy Teacher

2022 - Present

- Trained to operate Nvidia Jetson hardware for instructing 50+ high school students in machine learning techniques ranging from k-means clustering to CNNs and segmentation tasks.
- Rewrote part of the curriculum to account for issues SSH interfacing with course technology. Incorporated into wider course curriculum.
- Gained and helped 30+ students achieve Nvidia Jetson AI specialist certification.

SKILLS

Languages: C++, Java, Python, React, SQL, Regex
Linux, Vim, Docker, Git Experience

PROJECTS

Intel Synopsys Science Fair Paper: "Correction of Racial Bias in Facial Recognition Datasets" 2021.

"Comparison of the Combination of Bias Mitigation Models" 2022.

Local Version Control System "Gitlet" *Java, Python*

Created tree and hashing based java version control system similar to git. Used BFS and sha256 hashing to optimize program.

OTHER WORK & ACHIEVEMENTS

2019 USACO Gold Competitor

National Forensic League Special Distinction

Stanford Audited Courses:

CS229: Machine Learning, CS231n: Convolutional Neural Networks for Visual Recognition