Annabel Ng

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EDUCATION

UC Berkeley: B.S. Electrical Engineering and Computer Science GPA: 3.73

Berkeley, CA Expected May 2025

Clubs: Machine Learning @ Berkeley, Society of Women Engineers,

Computer Science Mentors, Association of Women in EECS

Coursework: Data Structures, Efficient Algorithms and Intractable Problems, Discrete Math and Probability, Structure and Interpretation of Computer Programs, Designing Information Devices and Systems I and II

SKILLS

Python (PyTorch, Keras, Pandas, SciKit-Learn), Java, SQL, Javascript, React.js, Flask, Linux, Git, Vim, Adobe Photoshop and Illustrator, Excel, Powerpoint

EXPERIENCE

Cubic Transportation Systems Software Engineering Intern

Boston, MA June 2023 - Aug 2023

- Developed a full-stack web application for the Boston MBTA transportation system using Flask and React to monitor over 300 devices, as well as various sales and ridership statistics
- Deployed a separate web app for tracking the location of over 100 active bus and subway trains across 6 different MBTA transit lines with real-time refresh every 2 minutes
- Configured devices in the testing environment, identified key requirements for test cases, and executed stress testing for the coin and bills cashbox in the fare vending machines

Redwood Center for Theoretical Neuroscience Undergraduate Machine Learning Researcher

Berkeley, CA Oct 2022 - Present

- Optimize a convolutional sparse coding model on MNIST and incorporate computational features to improve memory usage and efficiency in image factorization tasks
- Compare classification methods such as K-means, K-Nearest Neighbors (KNN), and high dimensional computing to evaluate effectiveness of convolutional sparse features

Sirota Lab @ UCSF Undergraduate Machine Learning Researcher

San Francisco, CA July 2021 - Jan 2023

- Predict preterm birth by applying decision trees and KNN using microbiome data stratified by body site on a phylotype level
- Compare relevant bacteria identified by the model, such as Blautia and Ureaplasma, to current microbiome literature to determine validity of connection with pre-term birth

LEADERSHIP

Machine Learning @ Berkeley Workshops Lead and Education Officer

Berkeley, CA Sept 2022 - Present

- Finetuned stable diffusion to generate New Yorker cartoons using Dreambooth and scraping custom dataset of New Yorker cartoons
- Spearheaded inaugural all-day high school bootcamp to introduce 45 high school students to machine learning through various workshops and a project classifying Google's Quick, Draw! dataset

Computer Science Mentors CS61A Junior Mentor and Academic Intern

Berkeley, CA Jan 2023 - May 2023

 Assist a group fo 5 students during labs and weekly sections by teaching mini-lectures, debugging, and walking through worksheets to build conceptual knowledge of Python and improve problemsolving skills

Projects

Improving Deep Neural Clinical Prediction Models with Textual Data Augmentation

• Applied textual data augmentation to improve the robustness of Clincial BERT, a finetuned language model adapated to clinical notes, for predicting 30-day hospital readmissions

AWARDS

• Cal Alumni Association Leadership Scholar

Aug 2023, 2022

• Google Cloud Next '23 Student Innovator

Aug 2023

• 1st Place in Computer Science Category at San Diego Science Fair

May 2021