

Education

University of California, Berkeley

Expected: May 2022

Major: Computer Science and Statistics

Relevant Courses

CS231n: CNNs for Visual Recognition

CS61a: Structure and Interpretation of Programs

CS61b: Data Structures

CS61c: Machine Structures

CS70: Discrete Math and Probability Theory

Palo Alto High School

August 2014 – May 2018

Data 8: The Foundations of Data Science

CS186: Introduction to Database Systems

CS170: Efficient Algorithms and Intractable Problems

Work Experience

Research Intern, RISE Lab, UC Berkeley

August 2019 – Present

- Working on Ray Tune (Machine learning hyperparameter tuning framework)
- Wrote package to interface Tune hyperparameter schedulers with sklearn models

Data Science Intern, RhoAI

June 2018 – August 2018, June 2019 – Present

- Consult with companies to suggest promising lithium-ion battery materials to synthesize using predictive models
- Designed and implemented machine learning model to predict melting point of electrolytes with 2x the predictive accuracy of previous model
- Designed and implemented model to identify reagents for electrolytes of interest and predict energy needed to synthesize electrolytes of interest
- Built ML app in Flask to centralize all predictive tools in one place for all clients

Research Intern, Persson Group, Lawrence Berkeley National Lab

October 2018 – June 2019

- Build online tool to allow scientists to graphically query Materials Project's 58k+ material band structures

Research Intern, Reed Group, Stanford University MSE

June 2017 – August 2018

- Used machine learning models to find promising lithium ion battery solid electrolytes and identify new training points to improve model accuracy; implemented Gaussian process to predict material's likelihood of being effective electrolyte
- Built ElectrolyteAI with Django and Bootstrap, a website releasing our lab's predictive model for use by researchers looking for promising solid electrolytes. 5-6 orders faster than conventional DFT calculations. Drafted publication.

Student Researcher, Advanced Authentic Research, Palo Alto High School

August 2016 – May 2018

- Conduct research on spintronic applications of graphene in cohort with Dr. McGee, superintendent of Palo Alto Unified School District, and National Junior College of Singapore
 - Run computations on graphene system using Quantum Espresso, wrote research poster and paper on results
 - Participated in exchange program in Singapore to be mentored by head researcher of NJC Singapore.
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Extracurricular Experience

Intern, Uizard, Student Association for Applied Statistics

August 2020 – Present

- Working on image to image search engine using CNNs and VAEs

Intern, Trace Data, Student Association for Applied Statistics

August 2019 – December 2019

- Used Word2Vec and clustering to classify JSON files to help build search engine on JSON data

Intern, Minted, Student Association for Applied Statistics

January 2019 – May 2019

- Generated augmented dataset to train CNN to count number of photos in Minted's postcard templates in order to make postcard templates more searchable for customers
- Built autoencoder in Tensorflow to generate image segmentation maps of postcard templates

Intern, Taco Bell, Student Association for Applied Statistics

August 2018 – December 2018

- Built statistical model to predict demand for Taco Bell products at 15 min. increments to adjust staffing accordingly
 - Used pandas to identify trends and variables affecting demand
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Skills/Languages

Java, Python, C, Django, Flask, HTML, CSS, Bootstrap, SQL, Unix, Git