

education

UNIVERSITY OF CALIFORNIA, BERKELEY | *expected graduation: May 2021*

Aug 2017 – present

Computer Science, Data Science (Applied Math and Modeling Emphasis) • GPA: 3.42

Relevant coursework: Computer Security, Algorithms, Artificial Intelligence, Data Structures & Object-Oriented Programming, Computer Architecture, Data Science Principles and Techniques, Probability Theory, Discrete Math

experience & leadership

UC BERKELEY RISELab

June 2019 – Dec 2019

Research Assistant (Supervisor: Dr. Joseph Gonzalez)

- Developed prototypes to improve Sketched-SGD, a distributed stochastic gradient descent algorithm that sends sketches of gradients for up to 40x communication cost reduction
- Designed and implemented data structure using Python and Pytorch that reduced L2 reconstruction error by 50% in simple non-distributed setting
- Tested and fine-tuned performance on deep learning models

BERKELEY CODEOLOGY

Jan 2019 – May 2019

Project Leader

- Led 4-week projects to learn how to build an online personal portfolio
- Designed lesson plans on relevant UX topics and web development technologies, such as navigation and HTML/CSS
- Worked one-on-one with students and received mentorship from club executives to improve teaching process

COMPUTER SCIENCE MENTORS

Jan 2019 – May 2019

Junior Mentor for CS 70 (discrete math)

- Taught hour-long sessions twice a week to group of 4 students
- Discussed topics such as logic, proof techniques, graph theory, probability, countability, and undecidability
- Reinforced content with the use of mini lectures and problem-based worksheets

UC BERKELEY EECS DEPARTMENT; STATISTICS DEPARTMENT

Aug 2018 – Dec 2019

Academic Reader for Data 100; former Academic Intern for CS 70 and Data 100 (data science principles)

- As a reader, graded homework, projects, and exams and constructed rubrics for a data science class with 1000+ students, totaling 10 hours/week. As an academic intern, assisted at office hours 3+ hours/week for each class
- Covered topics such as machine learning algorithms, exploratory data analysis, regression, and bias-variance tradeoff

PHI SIGMA RHO

Jan 2020 – present

Vice President of External Affairs

- Executive board member of UC Berkeley chapter of women in engineering national organization
- Coordinates with corporations, philanthropies, and other STEM organizations on campus

projects

IBM x DSS DATATHON FOR SOCIAL GOOD: BERKELEY CRIME ANALYSIS

Nov 2019

- Collected crime data from the city of Berkeley to identify trends, model crimes that occur closest to UC campus, and raise suggestions for Berkeley Police Department
- Leveraged pandas, scikit-learn, matplotlib, and Jupyter to run feature analysis and create data visualizations

HOMEBUDDY: FULL-STACK WEB APPLICATION

Feb 2019 – May 2019

- Built an application that pairs users with "home buddies" to walk home safely from campus
- On the front-end team, developed the client-facing side using React, Google Maps API, and HTML/CSS
- Created sign-up/sign-in functionality, fine-tuned the buddy matching algorithm, and designed user-friendly interface

BEARMAPS: WEB-MAPPING APPLICATION

April 2018

- Programmed a Java web-mapping application that outputs shortest path distances within Berkeley area
- Engineered rastering for correct tile selection and A* search algorithm to generate shortest distance between locations

EXPLORING DATASETS: MACHINE LEARNING APPLICATIONS

April 2018

- With a team, constructed linear regression and k-nearest neighbors models and applied to datasets from UCI repository
- Analyzed graphs generated using matplotlib and submitted report for Data Science Applications Decal (INFO 98)

skills

LANGUAGES | Python, Java, C, HTML/CSS, SQL

LIBRARIES & OTHER SOFTWARE | Pytorch, pandas, scikit-learn, matplotlib, numpy, LaTeX • Jupyter, Git, IntelliJ, Tableau

INTERESTS | Front-end development, machine learning, theory, supporting women in STEM, photography