

SAINAN(LILY) CHEN

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EDUCATION

University of California, Berkeley
B.A. Computer Science; B.A. Statistics
University of California, San Diego
Major in Statistics, minor in Cognitive Science

August 2019 - Expected May 2021
Overall GPA: 3.95, Major GPA: 4.0
September 2017 - June 2019
Overall GPA: 3.95, Major GPA: 4.0

Selected Coursework

Efficient Algorithms, Database System, Computational Photography, Data Structure, Machine Learning
Linear Modelling, Time Series, Stochastic Processes, Exploratory Data Analysis and Inference

PROJECTS

Vision Correction Display

August 2020 - current

- Work as an Undergrad Research Apprentice with professor Brian Barsky.
- Focus on improving the existing projection algorithm for pinhole mask to enable people with vision aberration to see images clearly on a screen without physical lenses.

Forecasting Outcomes of NCAA Womens Basketball Games (Python, R)

- Predicate winning probability and number of wins of teams using past competition data in various ways.
- Implemented Ratings Percentage Index algorithms to rate teams based on the winning percentage of the team and its opponents using Python.
- Used RPI to do logistic regression of winning probability and feature reduction in R.

Factors of suicide (Python)

- Investigate relationships between suicide rate and gender, country, GDP and HDI to help effectively intervene and prevent suicidal behaviors.
- Analysed the relationship between suicide rate and GDP through scatter plots, linear regression and hypothesis tests in different dimensions using Python.

TECHNICAL STRENGTHS

Coding languages	Java, Python, R, C, JavaScript, Matlab, SQL
Tools	Git, Microsoft Office suite, Adobe Photoshop

WORK EXPERIENCE

Discrete Mathematics and Probability Theory Grader

January 2020 - current

- 6 hours/week; class with 500+ students
- Held 2-hour office hour every week to assist students in course materials and assignments

Software Engineer Intern at Box

May 2020 - August 2020

- Worked independently as a full-stack engineer on a proof of concept project called Function for 12 weeks. Function is a short-lived service created in Google Cloud Platform that is triggered by an HTTP endpoint
- Built Function page and added UI elements, e.g. file uploader and button, with interactive actions on it using JavaScript and React
- Created actions on the backend, including storing, retrieving, and deploying function related data by calling Google Client to create Google Functions using PHP

Applied Linear Algebra and Vector Calculus Grader

September 2018 - June 2019

- 12 hours/week; 150+ students every quarter
- Read and evaluated 10 papers per student per quarter in classes

Data Analyst Intern at Yoozoo Games

June 2018 - September 2018

- Developed data sampling procedure to improve accuracy of the tests for junk-message-blocking-system and produced system documentation about it
- Developed algorithms to compile weekly reports to show the effectiveness of our system using SQL
- Helped implement A/B Testing of the system