

# SAINAN CHEN

Berkeley, CA

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## EDUCATION

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**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 December 2021*

Overall GPA: 3.96, Major GPA: 4.0

*September 2017 - June 2019*

Overall GPA: 3.95, Major GPA: 4.0

### Selected Coursework

Efficient Algorithms, Database System, Computer Graphics, Data Structure, Machine Learning

Linear Modelling, Time Series, Stochastic Processes, Exploratory Data Analysis and Inference

## PROJECTS

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### Vision Correction Display

August 2020 - May 2021

- Worked 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 Women's 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

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### Coding languages

Java, Python, R, C, JavaScript, Matlab, SQL

### Tools

Git, Microsoft Office suite, Adobe Photoshop

## WORK EXPERIENCE

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### Software Engineer Intern at Pinterest

May 2021 - August 2021

- Worked as a back-end engineer on creating a space for pinner creation & community building
- Built API endpoints to return trending contents in Python
- Used Spark SQL & Airflow to collect data and do performance analysis

### Software Engineer Intern at Box

May 2020 - August 2020

- Worked as a full-stack engineer on an independent 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 the Function page and added interactive UI elements, e.g. file uploader, using JavaScript and React
- Created actions on backend, including storing data, retrieving data and deploying uploaded code on Google Cloud Platform by calling Google Client, using PHP

### Discrete Mathematics and Probability Theory Grader

January 2020 - December 2020

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

### 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