KAREN YU

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EDUCATION

UNIVERSITY OF CALIFORNIA, BERKELEY   Graduation: May 2020

B.A. in Data Science, Domain Emphasis in Economics

WORK EXPERIENCE

Front-End Developer Intern at Adobe Inc.   *May 2019 – Aug. 2019*
- Created and deployed a tool to Adobe.com which uses a combination of natural language processing and machine learning to determine customer satisfactions and criticisms of Adobe products.
- Won 1st place out of 376 intern products nationwide for successful implementation of this tool that provided valuable business acumen to the company.

Project Manager for Data Science Society (DSS) at Berkeley   *Jan. 2019 – Aug. 2019*
- Leading a team of analysts to provide the client with creative and data-driven solutions.
- Spring 2019 client: PayPal Holdings, Inc.

Teaching Assistant at UC Berkeley Division of Data Sciences   *Aug. 2018 – May 2019*
- Fall 2018: Teaching and assisting "Data Science and Immigration". Supervised by Professor Carl Mason.
- Spring 2019: Course assisting "Population, Environment, and Development". Supervised by Professor Ethan Ligon.
- Debugging students' code, holding weekly office hours for one-on-one tutoring, and working with professors to develop curriculum.

Instructor for DSS at Berkeley   *Aug. 2018 – Dec. 2018*
- Teaching workshops to MBA and undergraduate students covering Python, R, SQL, and more.
- Mentoring general members of DSS by guiding them in hands-on data science projects.

ACTIVITIES

Stanford TreeHacks   *Feb. 2019*
- Created a web application that helps users alert and dispatch authorities in the case of school shootings.
- Scraped data from Center for Homeland Defense and Security to build model to find trends in populations of occurrences to develop better precautions for schools.

Hack A Better World by AirBnB & UNHCR   *Nov. 2018*
- Mapping refugee resettlement data on top of project funding to see where funding deserts exist within DonorsChoose.org.
- Analyzing survey data from over 10,000 donors to identify demographics of donors most likely to fund projects supporting refugee students.

PROJECTS

Fun With Graphs   *Language: Java*
- Wrote a library package to provide facilities for manipulating graphs, plus two clients that use the package (the Make program and a version of a trip finder).
- Implemented versions of Dijkstra's algorithm and A* search to find the shortest path between two destinations.

Game of the Amazons   *Language: Java*
- Wrote a program that played the Game of Amazons, a two-player abstract strategy board game.
- Created an AI to win the game against the opponent within 10 moves in less than 3 minutes.

NYC Taxi Rides   *Language: SQL, Python*
- Predicting NYC taxi ride durations using the NYC weather dataset and the NYC accidents dataset.
- Querying for data from a database using SQL, data cleaning using SQL/Pandas.
- Feature engineering and visualizations made based on insights about cleaned dataset, modeling with sklearn data pipelines.

Movie Classification   *Language: Python*
- Built a k-Nearest-Neighbors classification algorithm that guesses with 90% accuracy a movie's genre.
- Trained and tested algorithm on over 50 movie scripts to increase accuracy of classification.

SKILLS
- Java, Python, Jupyter, SQL, R, Pandas, Seaborn, SciPy, Matplotlib, RegEx, Machine Learning
- English (native/fluent), Chinese (native/fluent)

RELEVANT COURSES
- Principles and Techniques of Data Science, Data Structures, Structure and Interpretation of Computer Programs, Linear Algebra and Differential Equations, Introduction to Probability and Statistics, Microeconomic Theory, Intermediate Macroeconomic Theory, Probability for Data Science