Jiayin Guo

+1 510 850 7956 guojiayin@berkeley.edu linkedin.com/in/jiayin-guo-8b6880198/

Education

- **University of California, Berkeley** **GPA: 3.95/4.0**
  Master of Engineering in Industrial Engineering and Operations Research Aug. 2021- Dec. 2022
  Core courses: Statistic Learning; Simulation and Data Analysis; Techniques of Data Science; Optimization Analytics
- **Tongji University** **GPA: 3.72/4.0**
  Bachelor of Science in Environmental Engineering Sept. 2016- July 2020
  Awards: The 1nd Prize of Tongji Scholarship for Excellence in 2019, 2018 and 2017

Technical Skills

- Programming Language: Python, R, SQL, C#, Java
- Software: Excel, Tableau, Microsoft Office

Relevant Experience

- **Capstone Project: *Cost-benefit Ratio Analysis of Solar Panel Recycling*** Sept. 2021- May 2022
  - Built a cost model and a carbon footprint model to compare the different solar panel recycling methods; selected the method that is most environmentally friendly and cost friendly.
  - Worked in a team of four people, drew the big picture, made the project schedule and divided tasks; made periodic summaries and adjusted the project goals according to the process; communicated with other team members to ensure everyone on the same page.
- **Data Science Intern, *Tencent (Chengdu, China)*** Feb. 2021- May 2021
  - Used scikit-learn to do build a linear-regression model to draw inference on the most important features relating to the user satisfaction of the *Chengdu Tianfu Airport-Tencent Passenger Experience System (PES)*; the utilization rate of the system nearly doubled in the following month after the corresponding features were modified.
  - Conducted A/B testing to evaluate the effect of online advertising of snack manufacturers involved in the *Treasure Sichuan Plus* project; the average monthly sales increased by 17% after adopting the solution supported by the test.
  - Trained a Decision Tree Classifier with R to predict from which industry the ready-to-publish ads came based on text contents, the results were made available through a WeChat applet.
- **Data Science Intern, *China Southwest Architecture (Chengdu, China)*** June 2020- Aug. 2020
  - Collected data and conducted exploratory data analysis (EDA) on the energy saving rates of the existing green roof projects, used the PCA results to assist the architectures preparing for the Sichuan 2019 Green Roof Competition.
  - Predicted the seasonal profit of different departments through a linear-regression model; cross-departmental staff adjustments were made based on past data and results from the model.
  - Summarized the information of overseas projects in the past three years through Tableau; categorized the project characteristics in different continents, thus helping project managers to choose the location of future plans.
- **Data Project: *Greenhouse Gas Emissions Data Analysis in the U.S.*** Dec. 2021
  link: github.com/vulcan480/Fall2021_Data200_Graduate_Project
  - Conducted research on the historical Greenhouse Gas (GHGs) emissions data from direct emitters with respect to three features (company, sector and state); a complete cycle of data cleaning, EDA and modeling is reflected.
  - Applied Feature Engineering and used three Linear Regression models to predict Greenhouse Gas (GHGs) emissions in a given facility in a given year, and added them to calculate the total CO2e emission nationwide.

Additional Experience

- **Environmental Consultant Intern, *AECOM (Shanghai, China)*** Mar. 2019- June 2019
  - Updated and managed the EHS regulation sheets using Excel, after which monitored the changes in air and soil quality standards in California using SQL. The changes were presented to the environmental engineers in the team to assist their project design.
  - Communicated with sponsors and instructors as the point of contact in a waste water plant construction project in Hunan, China; created an online real-time feedback Q&A form through google doc.