# Kenneth Hahn

+1(951) 207-2607 Ahahnkenneth@berkeley.edu in LinkedIn Github Portfolio

# PROFESSIONAL SUMMARY

Aspiring Data Scientist with 4+ years of experience as a Chemical Engineer, specializing in process optimization and datadriven decision-making. Proven track record of driving efficiency improvements for companies like Tesla and Procter & Gamble by leveraging engineering insights and statistical analysis. Currently pursuing a Master's in Data Science at UC Berkeley, combining technical expertise with advanced data science skills to deliver innovative solutions to complex problems.

## **EDUCATION**

# University of California, Berkeley

Masters of Information and Data Science | 4.0 GPA

Relevant Coursework: Applied Machine Learning, Fundamentals of Data Engineering, Statistics for Data Science, Data Science Programming, Research Design and Applications for Data and Analysis

# University of California, Berkeley

May 2020

Expected: August 2025

B.S. Chemical Engineering, Minor in Mechanical Engineering | 3.6 GPA

#### **SKILLS**

Programming Languages: SQL (MySQL, Postgres), Python (Tensorflow, Keras, XGBoost, NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn), R, NoSQL (Neo4j), MATLAB, HTML

Data Visualization and Analysis: IMP, Tableau

Other Tools: AWS, Github, LaTeX, COMSOL, Visual Studio, RStudio

# **PROJECTS**

## Regression Analysis of Used Car Prices

September 2024

- Participated in Kaggle Competition to predict used car prices based on the Brand, Model, Color, Fuel Type, etc.
- Created models using Linear Regression with 11 and 12 regularization, XGBoost, and Random Forest Regression.
- Also developed a neural network with Keras, implementing Embedding Layers for highly cardinal text data.

#### Sustainable Bay Area Delivery Service

August 2024

- Created a Neo4j NoSQL Graph Database of BART, customer, and store locations within the Bay Area.
- Determined relationships between nodes by utilizing Google Maps Direction API to determine travel duration between two given nodes via BART or e-bike.
- Used Louvain Modularity and Dijkstra's shortest path algorithms to determine optimal new store locations to be within 40 minutes of any given customer.

## **EXPERIENCE**

# Tesla

Fremont, California

Battery Pack Process Engineer February 2022 – July 2024

- Created process for a new subassembly line via Postman API calls to parallelize workload and increase production of Model S/X battery packs by 33%.
- Decreased electrical resistances in battery pack to assist in safe operation of the vehicle, resulting in a statistical reduction of 57,430 defects per million to 98 defects per million.
- Improved leak test processes implementing statistical process controls, reducing the number of off-roaded vehicles and saving the company \$800K/year.
- Developed Tableau Dashboards to monitor critical equipment KPIs for the new Cybertruck launch.

# **Procter and Gamble**

Sacramento, California

August 2020 - February 2022

Hydrogenation Fatty Alcohol Manufacturing Engineer

- Experimented and executed an increase to site throughput of Fatty Alcohol Product by 1%, resulting a site revenue gain of approximately \$3M/year, without the use of capital spending.
- Implemented process control strategies to tune a pressure control valve to allow higher pressures in the reactors. This led to a 0.2% increase in reaction completions and overall throughput (\$600K/year improvement).
- Decreased Downtime by 5% (438 hours) through identification/mitigation of top contributors with Pareto Principle.