

# Shahin Karami

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## Summary of Qualifications

Currently a Data Analyst at the Contractors State License Board, aspiring to join the Revenue Strategy team at SMUD. An analytically driven individual with experience in project management and various analytical modeling tools used for evaluation activities. Eager to learn and conduct technical analysis, load research, demand forecasting, and economic analysis required to contribute to SMUD's 2030 Zero Carbon Plan.

## Employment History

### Research Data Analyst

Contractor State License Board

Sacramento, CA

December 2023 –

- Drafts occupational analysis report to inform the public of both demographic and scope of practice trends.
- Performs ongoing statistical analysis to evaluate performance of 8 licensing examinations.
- Analyzes examination data to identify poorly functioning exam items (across 4,400+ items).
- Evaluates the impact of regulatory and legislative changes on the examination item content.
- Currently utilizing Excel to increase department budget via a comprehensive data analysis of past workshops.

### Graduate Research Assistant

World Bank | Global Education Policy Dashboard

San Luis Obispo, CA

January 2023 - June 2023

- Collaborated with members of The World Bank in analyzing survey data from public and primary school officials to explore the role public officials have on educational outcomes.
- Led the implementation of Double Machine Learning regression model to deliver a precise range of estimates of the effect of bureaucratic perceptions on educational outcomes.
- Produced a technical report highlighting the effectiveness of Double Machine Learning compared to traditional regression methods.

### Research Assistant

UCSC Economics Department

Santa Cruz, CA

April 2020 – December 2021

- Conducted literature review on vaccine hesitation and adoption methods under Dr. Kristian Lopez Vargas.
- Performed exploratory data analysis using vaccine uptake data from Dominican Republic field experiment.

## Personal Projects

### Load Shape Visualization and Forecasting using XGBoost and Prophet

Python

- Visualized analysed, and discussed 16 years of PJM load shape data.
- Utilized XGBoost and Prophet models to forecast hourly energy consumption.
- Conducted a thorough analysis of error metrics between both models, favoring XGBoost conclusively.
- Developed and trained an XGBoost model for predicting energy consumption, enabling next-day forecasts.

### Price Prediction model for Tokyo Based Real Estate Company

Python

- Performed extensive exploratory data analysis employing the SweetViz Package.
- Carried out correlation analysis using ANOVA and the Pearson Correlation coefficient.
- Developed a robust Gradient Boosting Regression model with a MAPE of 0.49% to predict real estate prices.

### Exploratory Data Analysis of UK Vehicle Accident

TSQL

- Thoroughly cleaned, transformed, and meticulously prepared UK Road Safety datasets using Python, ensuring data clarity and reliability.
- Utilized Microsoft SQL Server Management Studio to conduct exploratory data analysis on UK Road Safety datasets.

## Education

### California Polytechnic State University

Master's Degree in Quantitative Economics | GPA: 3.92

San Luis Obispo, CA

June 2023

### University of California, Santa Cruz

Bachelor's Degrees in Mathematics & Economics | GPA: 3.45

Santa Cruz, CA

June 2021

## Leadership

### President: Iranian Students Union

Leadership position focused on connecting Iranian student through social media and member outreach.

UC Santa Cruz

June 2020 – June 2021