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# **Kevin Tsoi**

## katsoi.github.io

GitHub: katsoi LinkedIn: tsoisoi

**SKILLS** 

Tools and Languages Libraries Python, SQL (PostgreSQL), R (RStudio), Tableau, Excel, Git, LaTeX Numpy, Pandas, Matplotlib, Seaborn, Scikit-learn, Jupyter

Regression (Linear, Logistic, Polynomial, Time Series), Classification (K-NN, SVM), Clustering (K-means, Hierarchical), Dimensionality Reduction (LDA, QDA, Principal Component Analysis), Association Rule

Mining, Recommender Systems, Data Cleaning & Interpretation

**EDUCATION** 

**Technical Skills** 

M.S. Mathematics

Cal Poly Pomona

Pomona, CA

Thesis: Clustering and Recommendation Systems for Instacart Delivery Orders

B.S. Mathematics Sept 2017 — Dec. 2019
Cal Poly Pomona Pomona, CA

**EXPERIENCE** 

ARCHES Staff / Analyst + Lead Tutor

Cal Poly Pomona Foundation

Aug 2020 — July 2022

Pomona, CA

• Analyzed of the effectiveness of the program using survey data provided from participants and created performance reports using Excel and LaTeX.

- Mentored students with disabilities in the ARCHES program whose goal is to provide academic assistance to students with disabilities.
- Provided mathematics and statistics tutoring from various lower division to upper division courses: (basic algebra to calculus to probability and statistics).

## **SEES Staff/ Statistics Learning Assistant**

Sept. 2018 — Dec. 2019

Pomona, CA

Cal Poly Pomona Foundation

- Led and coordinated with statistics faculty to discuss weekly material for a statistics activity section.
- · Created weekly worksheets for the course using LaTeX.

### LEADERSHIP AND ACTIVITIES

Hackathon / DataFest 2019
Chapman University
Orange, CA

- Medalist for Best Use of Data Forensics out of 30 teams.
- Handled and analyzed large data sets with millions of entries involving the Canadian National Women Rugby Sevens Team using SQL.
- · Compared two week training schedules of players to tourney placements by creating visualizations using Tableau.

## Kappa Mu Epsilon Math Honorary / President

Dec. 2018 — Dec. 2019

Cal Poly Pomona Pomona, CA

 Organized and led bi-weekly meetings with members to present math-related opportunities such as attending the Joint Mathematics Meetings, graduate school talks from faculty, and potential job prospects.

#### **PROJECTS**

## **Determining Humanitarian Aid to Underdeveloped Countries**

- Used a Kaggle data set that contains information on socio-economic and health factors of 167 countries to determine which countries are in need of financial aid.
- Utilized K-means and hierarchical clustering methods to cluster countries into four levels of overall development.

## Forecasting Air Quality in Naples, Italy

- Analyzed and assessed carbon monoxide levels of Naples, Italy from 2004 and 2005 provided by the UCI Learning Repository.
- Applied linear smoothing and kalman filtering methods to approximate missing values in the data.
- · Constructed forecast models using seasonal ARIMA models and cross-validated them on the basis of AIC and BIC.