

Kevin Tsoi

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SKILLS

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

M.S. Mathematics Aug 2020 — Dec 2022
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 Aug 2020 — July 2022
Cal Poly Pomona Foundation Pomona, CA

- Analyzed 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
Cal Poly Pomona Foundation Pomona, CA

- 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 May 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 to 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.