Kelly Lam

kelly.kn.lam@gmail.com • (408) 355–8601 • linkedin.com/in/koding-with-kelly • San Jose, CA

EDUCATION

SAN JOSE STATE UNIVERSITY *Graduated December 2020*

B.S. in Applied Mathematics, Concentration in Computational Mathematics
Minor in Economics

- **Honors:** Cum Laude, Dean's Scholar (Fall 2017/Fall 2019)
- **Relevant Coursework:** Introduction to Database Management Systems, Data Structure and Algorithms, Mathematical Modeling, Numerical Analysis, Probability Theory

TECHNICAL SKILLS

Languages: SQL, Python, R, Java
Libraries/ Tools: Pandas, NumPy, Seaborn, Matplotlib, Sklearn, Tidyverse, Tableau, IBM Cognos, BeautifulSoup
Software: MS Excel, MySQL, Jupyter Notebook, Spyder, R Studio
MOOCs: *(Esri)* Spatial Data Science: The New Frontier in Analytics
(Udemy) R Programming A-Z™: R For Data Science With Real Exercises!
(Udemy) Machine Learning A-Z™: Hands-On Python & R In Data Science

EXPERIENCE

STEM Mentor Intern
Girlstart *January 2019 – May 2019*

- Organized weekly STEM activities with 2 other mentors for 45 young girls (grades 3-5) to bring awareness to career options in STEM.
- Conducted a survey at week 18 and achieved a 93% improvement in their knowledge of STEM and a 533% increase in their desire to pursue STEM careers.

PROJECTS

Glassdoor Data Analyst Essential Knowledge Guide (https://tinyurl.com/GlassdoorProj)

- Web scraped 20 pages of Glassdoor using BeautifulSoup and Selenium to obtain 200 interview questions from 146 companies to create a study guide and scraped 1000 data analyst job postings to explore.
- Extracted essential job skills with NLP techniques: Word2Vec, Topic Modeling/LDA, and Rule-Based Matching.
- Developed a Support Vector Regression model to estimate data analyst salaries with a MAE of $12,700.

Spotify Optimal Musical Flow Playlist (tinyurl.com/OptimalFlowPlaylist)

- Analyzed and wrangled 7,000+ rows of personal Spotify data using Pandas, NumPy, and Seaborn to visualize streaming trends and correlation between each extracted "audio feature".
- Collected 15 audio features for each song using Spotify's API to request data in JSON to improve playlist by reordering songs with optimal musical flow.
- Coded a Python script to automate curated songs from a .csv file into a Spotify playlist.
- Presented analytical findings on a dashboard using Tableau.

Airline Reservation System (tinyurl.com/yxkgj6ng)

- Coordinated with 2 software engineering students to design an airline reservation system utilizing Java and MySQL to allow users interact with the airline database that supports archiving.
- Supplemented the system with 16 procedures and 2 triggers along with 5 queries that involved 2-5 relations simultaneously using correlated subqueries, joins, and/or aggregation.
- Created a database such that its relations were in 3NF or BCNF to eliminate data redundancies.

Spatial Analysis on Homelessness in the Bay Area

- Used ArcGIS and SQL to create 18 choropleth graphs based on calculated Gini coefficients to infer homelessness in the Bay Area and map distributions of different races experiencing homelessness.
- Wrangled 200,000+ rows of data in ArcGIS and Excel by cleaning, structuring, and enriching the data.
- Discovered a 46% increase in homelessness and 49.64% reduction of shelter resources.