Jeff Hwang

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Technical Skills

Languages: Python, SQL, R, C++, JavaScript, HTML, CSS
Tools/Technology: Tableau, PowerBI, Excel, pandas, Numpy, Matplotlib, scikit-learn, tensorflow, seaborn, PostgreSQL, Git, LaTeX

Experience

Traffic Engineer Intern Jan 2024 – Aug. 2024
Traffic Control Engineering *Brea, CA*

- Caoordinated with the internal engineering team members to develop and deliver a variety of design plans
- Utilized AutoCAD and Google Earth to build precise traffic engineering designs and plans, ensuring accuracy and alignment with project requirements.
- Facilitated reviews of the product or drawing submittals during the construction phase while proactively updating and maintaining databases and logs

Projects

Adult Income Predictor | *Python* | *pandas* | *NumPy* | *scikit-learn* | *tensorflow*

- Developed an income prediction model using the UCI Census dataset, following an end-to-end data science pipeline including data collection, cleaning, preprocessing, and analysis.
- Utilized logistic regression and custom prediction models to forecast income ranges, achieving alignment with underlying data distribution
- Implemented bias mitigation strategies, including resampling, regularization with dropout layers, and fairness analysis using distribution comparisons.
- Evaluated fairness within predictions, identifying limitations due to dataset imbalance and low high-income representation.

Aerosol Concentration Predictor | *Python* | *pandas* | *NumPy* | *Matplotlib* | *scikit-learn* | *seaborn*

- Built a machine learning model to analyze the relationship between weather conditions and atmospheric aerosol concentrations in the Los Angeles, California region
- Conducted KNN regression and used cross-validation to test KNN regression model with **.98** accuracy and **.002** MSE for predicting NOx levels
- Applied data cleaning and exploratory data analysis on a **2000+** observations dataset using tools such as **pandas, seaborn,** and **scikit-learn**

RateMyItinerary | *JavaScript* | *HTML/CSS* | *Node.js* | *Express.js* | *MongoDB*

- Developed a full-stack web application that allows people to create and share itineraries
- Implemented a forum allowing users to post custom itineraries, search by keyword, and sort by location
- Facilitated the front-end skeleton using **HTML, CSS,** and **JavaScript** while using **Express.js** as the back-end web application framework
- Utilized **MongoDB** to allow each user to store their own unique itinerary

Education

University of California, Riverside Riverside, CA
Bachelor of Science in Data Science *Expected: December 2024*

- GPA: 3.5/4.0
- Relevant Coursework: Data Structures and Algorithms, Data Analysis Methods, Artificial Intelligence, Database Management Systems, Machine Learning and Data Mining, Software Engineering