

JACOB PAXTON

DATA SCIENTIST



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/jacobPaxton



/jacob-paxton

ABOUT ME

A skilled and motivated military vet with a positive track record in leadership. Highly driven to meet goals and solve problems. Combines experience in high-intensity workflows with tech skills to provide impactful data-driven insights to stakeholders.

TECHNICAL SKILLS

Python - SQL - Tableau - Git - Excel - Jupyter NB
Pandas - Scikit-learn - Matplotlib - Seaborn
Machine Learning - Applied Statistics - SciPy
Natural Language Processing (NLP) - Google Suite

WORK EXPERIENCE

Project Supervisor, Assessments

US Air Force, Sep 2019 - Mar 2020

Managed capabilities assessments for Wing commander. Designed, conducted experiments on emerging technologies. Presented weekly to Wing command staff. Enlisted, coordinated mission operators for a variety of assessments. Mentored others for project design, implementation.

Project Supervisor, Production

US Air Force, Jan 2018 - Sep 2019

Modernized, ran the main production workflow for a large office. Created multiple analytic teams, selected projects. Coordinated with other offices on various problem sets. Traveled to, met with new overseas partners to increase analytic effectiveness. Published first modernized reports in office history.

Chinese Language Analyst

US Air Force, May 2014 - Jan 2018

EDUCATION

Data Science Bootcamp

Codeup, June 2021 - December 2021

AA in Chinese-Mandarin

Defense Language Institute, GPA: 3.4

DEVELOPMENT PROJECTS

Bank Loan KPI Visualization

Tableau

Individual project focused on visualizing bank loan metrics using Tableau. Acquired a multi-file bank metrics dataset, then linked files as a data source in Tableau. Aggregated loan data by month and quarter, by loan type, and by location. Built level of detail calculations to show various aggregations in tooltips. Used conditional formatting to indicate each city's average loan amount and total sum of loans. Fused dataset with a location source for loan location mapping and a separate hand-built file to visualize monthly loan revenue from accounts in good-standing. Put these visualizations to a Tableau dashboard [here](#).

Zillow Home Value Analysis

SQL, Tableau, Statistical Analysis, Regression

Solo project focused on identifying and analyzing drivers of home value. Used a SQL query to acquire, join, filter, case, alias, and create features for analysis. Exported data into Tableau. Used Tableau to answer stakeholder questions and build statistical visualizations based on initial hypotheses. Split and scaled data for modeling using Scikit-Learn. Built and fit various regression models to predict home value based on identified features. Calculated RMSE, r^2 variance for model evaluation, plotted residuals. Presented findings to stakeholders and answered questions about methodology and results.

COBB Tuning - Dynamometer Results Analysis

Tableau, Web Scraping, Statistical Testing, Regression

Side project to Codeup's curriculum focused on predicting max horsepower using car configurations. Scraped COBB Tuning's dynamometer results query tool for dyno run data. Organized, cleaned this data then uploaded it [here](#) for public use. Incorporated stock horsepower to normalize values. Used Tableau visualizations to test and show results. Built, tested predictive features based off keywords. Built various regression models to predict horsepower. Calculated RMSE, r^2 variance for model evaluation and plotted residuals.

Ramen Ratings Analysis

Keyword Engineering, Statistical Testing, Classification

Side project to Codeup's curriculum focused on predicting if a ramen product will be rated 5 stars. Used Python and Pandas to wrangle a ramen ratings dataset containing various product information. Used domain research and translation to conduct keyword engineering on product names. Identified and categorized keywords into features, then tested statistical relationships for created features using SciPy. Used Scikit-Learn to resample the class imbalance, build various models, and implement F1 Score, Grid Search, and ROC curve AUC to evaluate models.