John Paul Feliciano

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Education

Oregon State University

California State University, Fullerton

Bachelor of Science in Computer Science

Bachelor of Science in Public Health

May 2020

Skills

Software Development: Python, C, SQL, HTML, CSS, JavaScript, Flask, Node.js, Express, React, Git
Data & Analytics: MySQL, MongoDB, SSMS, Power BI, Jupyter Notebook, pandas, NumPy,

Matplotlib, XGBoost, Visio, Scikit-learn, ETL

Experience

IEHP, Rancho Cucamonga, CA

Software Engineer Intern

June 2024 - December 2024

- Built Python script to fetch provider data via NPPES NPI API, cutting 100,000-row processing to 60 seconds
- Developed Excel and Power BI reports for internal controls, identifying inefficiencies in business operations
- Secured SSMS data warehouse access and created an ERD, improving database interpretation for finance teams
- Performed ad-hoc data analysis for leadership, extracting insights from large datasets using SQL and Python
- Designed Visio flowcharts to map accounts payable controls, detecting fraud, waste, and abuse patterns
- Analyzed vendor contracts using Conga, Bonfire, assessing renewal justifications, and sole/single source validity

Vinh Sanh Trading, City of Industry, CA

Data Entry Associate

July 2022 - December 2022

- Entered sales orders into SBT system for invoice processing
- Created a Google Drive spreadsheet with dropdowns and data validation for invoice organization
- Printed and sorted invoices for sales representatives to facilitate order fulfillment

Projects

Levrum Data Technologies

Real-Time 911 Call Forecasting

GitHub Repository

- Developed a Python-based EMS call prediction system using XGBoost and historical dispatch data
- Processed and cleaned EMS dispatch data, extracting time-based features for trend analysis
- Engineered cyclical time features for improved modeling, capturing hourly, daily, and monthly call patterns
- Trained an XGBoost regressor on past EMS call data
- Predicted future EMS call volumes for known locations, enhancing resource allocation and dispatch planning
- Built an interactive Folium heatmap visualizing predicted EMS call hotspots for better response planning

IEHP

Risk Assessment and Invoice Fraud Detection System

GitHub Repository

- Built a Python tool to process and analyze invoices, assigning risk ratings for fraud detection and compliance
- Automated data ingestion and cleaning, converting invoice dates to datetime objects for validation and comparison
- Developed NLP preprocessing using NLTK to tokenize, stem, and remove stop words from invoice descriptions
- Implemented TF-IDF vectorization and DBSCAN clustering to detect similar invoices and flag potential fraud
- Designed custom risk checks to detect duplicate payments, missing documents, and threshold violations
- Created risk scoring models that classify transactions based on department policies and audit inconsistencies
- Engineered custom validators to flag invoice mismatches, out-of-sequence events, and excessive payments
- Automated structured Excel report generation, saving flagged transactions with risk scores for audit review

Viewpoint Ambulance

EMS Data Processing & Reporting Tool

GitHub Repository

- Built a Python ETL pipeline to clean and merge ambulance billing data from Traumasoft and Call the Car CSV files
- Automated data ingestion, standardizing patient details and addresses using Pandas, Regex, and Scourgify
- Developed functions to clean data, extract wait times and oxygen needs, and remove invalid records from reports
- Engineered a data-matching algorithm to merge patient records, improving accuracy for billing and reporting
- Automated structured CSV report generation for billing and operational analysis, improving efficiency