John Paul Feliciano

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EDUCATION

Oregon State University Mar 2025

Bachelor of Science in Computer Science

- Relevant Coursework: Software Engineering I, Software Engineering II, Analysis of Algorithms, Data Structures, Programming Language Fundamentals, Introduction to Databases, Operating Systems I, Web Development

WORK EXPERIENCE

Inland Empire Health Plan (IEHP), Rancho Cucamonga, CA Jun 2024 – Dec 2024

Software Engineer Intern

- Automated doctor license verification by developing a Python script to interface with the NPPES API and extract names for 100,000+ records, eliminating manual entry and boosting data accuracy
- Developed a Python risk assessment tool that preprocesses cash disbursement data using DBSCAN to identify anomalous invoice descriptions, streamlining high-risk transaction detection and supporting efficient audit workflows
- Consolidated transportation data by identifying key databases, designing an ERD, and documenting access protocols, laying the groundwork for advanced machine learning fraud detection initiatives
- Analyzed procurement contracts with Excel pivot tables to evaluate KPIs—delivery speed, renewal potential, and single-sourcing—and delivered a report that pinpointed control gaps and guided strategic decisions

PROJECTS

Levrum Data Technologies Jan 2025 – Mar 2025

Predicting Emergency Medical Service (EMS) Calls in Real-Time

- Built a full-stack application integrating a Django API with a React TypeScript front end and Mapbox heat maps, providing EMS teams with interactive, real-time call predictions for improved decision-making
- Developed a real-time EMS call forecasting pipeline using XGBoost by engineering temporal and spatial features from Charlotte EMS call data, enabling proactive resource allocation for EMS teams
- Optimized geospatial data processing by implementing K-means clustering for EMS call data partitioning, enhancing model granularity and improving regional prediction accuracy
- Orchestrated quality assurance efforts by reviewing code, managing agile sprints, and coordinating team meetings, ensuring a consistent codebase and timely project delivery

Inland Empire Health Plan (IEHP), Rancho Cucamonga, CA Jun 2024 – Dec 2024

Automated Invoice Risk Analysis & Data Pipeline

- Leveraged Python libraries (Pandas, NLTK) to ingest raw financial data, standardize date formats, and normalize textual invoice descriptions using stemming and stopword removal, ensuring high data quality and consistency
- Applied TF-IDF vectorization with DBSCAN clustering to group similar invoices, facilitating the streamlined identification of atypical patterns and potential inconsistencies
- Developed a modular system incorporating custom rule-based checks (e.g., sequential date validation, duplicate payment detection, document consistency) and aggregated weighted risk scores to support data-driven decision-making

SKILLS

Development & Integration

Python, Django, Flask, React, TypeScript, HTML, CSS, Jinja, SQL, Git, RabbitMQ, Pika, Requests, Vite, Unit Testing, ESLint

Data, Analytics & Networking

XGBoost, Pandas, NumPy, K-Means Clustering, Data Cleaning, CSV Processing, GeoJSON, Mapbox, Raw Sockets, ICMP, Ping, Traceroute, Network Programming