John Paul Feliciano

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EDUCATION

Oregon State University   **Corvallis, OR**
Bachelor of Science in Computer Science   *Graduation Date: Mar 2025*

California State University, Fullerton   **Fullerton, CA**
Bachelor of Science in Health Science   *Graduation Date: May 2020*

WORK EXPERIENCE

Inland Empire Health Plan (IEHP)   **Rancho Cucamonga, CA**
Software Engineer Intern   *Jun 2024 – Dec 2024*

- Developed and deployed advanced Excel and Power BI dashboards to identify operational inefficiencies, achieving a 20% cost reduction that translated into an annual savings of $150K for Medicaid initiatives aimed at supporting low-income residents.
- Engineered an auxiliary processor file that preprocesses data using the DBSCAN clustering algorithm, successfully categorizing similar invoice descriptions and improving data accuracy by 30% across all auditing reports.
- Implemented a Python-based automation system that transformed the data retrieval process for healthcare provider information, reducing manual search times by 90% and saving the team an estimated 80 hours per month.
- Pioneered access to the IEHP data warehouse, enabling the internal controls team to leverage real-time data insights, resulting in a 40% reduction in query response times for critical audits.
- Collaborated with a diverse team of 10 computer science, mathematics, and business intelligence students to label over 50,000 data points for a supervised model aimed at detecting fraud in transportation claims, enhancing model accuracy by 30%.

PROJECTS

Levrum Data Technologies   **Corvallis, OR**
Predicting EMS Calls in Real-Time   *Jan 2025 – Mar 2025*

- Analyzed and transformed over 1 million EMS dispatch records to extract time-based features, resulting in a 30% increase in the accuracy of trend predictions for emergency call volumes.
- Developed and integrated advanced cyclical time features into predictive models, resulting in a 30% increase in forecast accuracy for emergency medical service (EMS) call patterns over a six-month evaluation period.
- Engineered a predictive analytics model utilizing XGBoost, which analyzed over 500,000 historical dispatch records to forecast EMS call volumes with 85% accuracy, enhancing resource allocation efficiency by 30%.
- Facilitated iterative development processes with project management oversight to refine model parameters, which improved real-time prediction capabilities by processing data sets of over 1 million entries, enabling proactive resource allocation during peak demand periods.
- Developed and deployed an interactive Folium heatmap that identified potential EMS call hotspots, leading to a 30% improvement in response time across high-demand areas for over 500,000 residents.
- Collaborated with emergency management teams to integrate real-time analytics into operational workflows, leading to a reduction in response time variance by 20% and supporting proactive deployment strategies for critical incidents.

SKILLS

Programming & Data Analytics: Python, SQL, VBA, Power BI, Excel Dashboards, MySQL, Data Warehousing, DBSCAN, XGBoost, Predictive Modeling, Feature Engineering, Clustering, Data Retrieval Automation, Geospatial Visualization (Folium)

Software Engineering & Development: Software Development Lifecycle, Big Data Processing (1M+ records), Query Optimization, Real-time Analytics Integration, Model Optimization, Performance Tuning, Workflow Streamlining, Operational Efficiency, Cross-functional Collaboration, Project Management Oversight