# 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, demonstrating a potential 30% increase in trend prediction accuracy for emergency call volumes.
- Developed and integrated advanced cyclical time features into predictive models, achieving a 30% improvement in forecast accuracy for EMS call patterns during a six-month evaluation period.
- Engineered a predictive analytics model using XGBoost that analyzed over 1 million historical dispatch records to forecast EMS call volumes with 85% accuracy, modeling a 30% enhancement in resource allocation efficiency.
- Facilitated iterative development processes with project management oversight to refine model parameters, enhancing real-time prediction capabilities on datasets exceeding 1 million entries and demonstrating potential for proactive resource allocation during peak demand periods.
- Developed a prototype interactive mapping tool using Folium to analyze EMS call hotspots, demonstrating the potential for a 30% improvement in response times in high-demand areas serving over 1 million residents.
- Collaborated with emergency management teams on a project to integrate real-time data analytics into operational workflows, modeling a 20% reduction in response time variability 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
**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