LUIS DELOTAVO

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EXPERIENCE

J.D. Power | Software Engineering Intern   London, ON
May 2023 - Aug 2024

- Built components for a full stack ETL platform within the Artificial Intelligence Cloud Delivery Unit, the largest internal data analysis tool in the company using Angular, TypeScript, Python, BigQuery, Firestore, and Docker.
- Designed and implemented a Google BigQuery rollback mechanism that optimized SQL database workflows, reduced system downtime by 35%, and ensured uninterrupted access to critical data.
- Enhanced application reliability by maintaining comprehensive documentation, prioritizing high impact Jira tickets in Agile sprints, and increasing unit test coverage to over 60% with Jest, contributing to a 90% on time release rate.

Glendor | Software Development Intern   Remote
May 2022 - Aug 2022

- Contributed to the Protected Health Information (PHI) Sanitizer team by automating the removal of sensitive information from medical data, reducing manual processing time by 95% while ensuring compliance with privacy regulations.
- Engineered a robust Health Level 7 (HL7) to XML conversion algorithm, incorporating web scraping techniques for header extraction to achieve efficient, reliable data transformation across healthcare datasets.

PROJECTS

London Transit Delays | *youtube.com/london-transit-delays*
Sep 2024 - Apr 2025

- Led award winning project (1st place, Western University Capstone) that orchestrates containerized microservices via Docker Compose, integrating Grafana, Jupyter Notebooks, MongoDB, and Node.js to process real time transit and weather data.
- Constructed an end to end ETL pipeline for data collection, model training, and deployment with predictive analytics that forecasts transit delays, enabling bus delay predictions 15 minutes ahead with a mean absolute error under 5 minutes.

Stockr | *www.stockr.info*
Feb 2025 - Apr 2025

- Developed a full stack finance application with secure RESTful APIs enabling users to manage watchlists, visualize portfolio performance, and track asset distribution across different investment categories.
- Implemented architecture with Firebase Authentication, Next.js frontend, Flask backend, and PostgreSQL database, all containerized with Docker for consistent deployment.
- Integrated OpenAI's API with Retrieval Augmented Generation (RAG) to create a conversational financial advisor that provides personalized investment insights based on user portfolio, current market data, and twitter sentiment.

Cardio Risk Engine | *github.com/luisdelotavo/cardio-risk-engine*
Nov 2024 - Dec 2024

- Trained a high accuracy (90%) machine learning pipeline for cardiovascular risk prediction using Random Forest and Neural Network models, with comprehensive hyperparameter tuning and model evaluation.
- Enhanced model performance through data preprocessing techniques including binary encoding, one hot encoding, and feature scaling to identify and prioritize key risk factors.
- Evaluated model reliability using k-fold cross validation, ROC-AUC, and F1 metrics, demonstrating the solution's potential for early healthcare intervention and risk assessment.

EDUCATION

Western University | *Bachelor of Engineering in Software Engineering*   London, ON
Apr 2025

- **Courses:** Data Structures and Algorithms, Operating Systems, Database Management, Computer Networking, Cloud Computing, Web Technologies, Machine Learning, Information Security, Artificial Intelligence

TECHNICAL SKILLS

Programming Languages	TypeScript, JavaScript, Python, Java, C++, SQL, HTML/CSS
Frameworks & Libraries	Angular, React, Spring Boot, Flask, Node.js, Express, sklearn, pandas
Tools & Technologies	Docker, Kubernetes, Grafana, Git, Postman
Cloud Platforms & Data	Google Cloud Platform (BigQuery, Firestore, Compute Engine), Amazon Web Services (EC2, S3, Glue, Lambda), PostgreSQL, MongoDB, PySpark