

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.
- Resolved migration issues during Angular version 13 to version 14 upgrade, specifically warnings caused by conflicting ngModel and FormControl usage on the same input element, and updated legacy template to meet new reactive form standards.
- 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.
- Integrated in-platform support functionality allowing users to submit issues directly to Jira, streamlining cross team communication, accelerating the bug resolution process, and reduced average ticket creation time by 95%.
- 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 using Python, incorporating web scraping with BeautifulSoup and Selenium 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, preprocessing, model training (Keras Neural Network), and deployment, predicting transit delays 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 using Next.js, Flask, PostgreSQL, Docker, and Firebase Authentication, enabling users to manage watchlists, visualize portfolio performance, and track asset distribution by sector.
- Leveraged 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.
- Improved model performance through data preprocessing (binary encoding, one-hot encoding, feature scaling) and evaluated model using k-fold cross validation, ROC-AUC, and F1 metrics to identify key risk factors.

EDUCATION

Western University | Bachelor of Engineering in Software Engineering

London, ON

Sep 2020 - 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