Parsa Jafarian

parsa.jafarian@mail.mcgill.ca – linkedin.com/in/parsa-jafarian – parsajafarian.github.io – github.com/parsajafarian

EDUCATION

McGill University Montreal, Quebec, Canada
B.Eng in Software Engineering Co-op | **GPA**: 4.00/4.00 August 2024 – May 2028

- Probability & Statistics, Calculus (1-3), Differential Equations, Digital Logic

EXPERIENCE

Data Analyst Dorval, Quebec, Canada
Transport Canada January 2025 – August 2025

- Automated and optimized data pipelines by loading Azure Data Lake Storage data into **Databricks** with **Python** & **PySpark** using **Azure Data Factory**, reducing load on the database, and enhancing security
- Migrated **SAP** reports to **Power BI** by developing paginated reports for marine vessel data in Power BI **Report Builder** using **DAX**, resulting in reduced report generation time and improved data accuracy
- Optimized a Power BI dataset by splitting it into **Dataflows** and modifying **M-code**, aggregating data in **Oracle SQL**, and using **DirectQuery**, reducing load time **from 4 hours to 45 minutes**
- Automated the cancellation of long-running Power BI dataset refreshes using a **PowerShell** script in **Power Automate**, reducing database capacity overload via the Power BI **REST API**

Embedded System Developer Montreal, Quebec, Canada
McGill Formula Electric & McGill Drone Team September 2024 – January 2025

- Initiated **ROS2** setup for the new Driverless subteam by building a custom **Docker Image** for containerization, leading to a faster setup for members unfamiliar with **Ubuntu** or **Virtual Machines**
- Accomplished communication between two **STM32** controllers via **CAN** & **SPI** protocols in **C** & **C++** while ensuring correct pin alignment through **PCB** design verification
- Trained a **YOLO** model to detect black bins on natural terrain using **Kaggle**-sourced data and an **OpenCV**-generated dataset, achieving **98%** accuracy for drone-based fire detection and extinguishing

Web Developer Montreal, Quebec, Canada
Tail'ed July 2024 – September 2024

- Implemented **WebSocket** for real-time communication with **Next.js** server actions, enabling push notifications and reducing server-client data exchange latency from **2 seconds to 100 milliseconds**
- Set up automated unit tests with **Jest** and **Github Actions**, cutting backend development time by **30%** by reducing reliance on slow client-side testing
- Designed and implemented a type-safe backend using **TypeScript**, structuring internship data models to enhance query efficiency and maintainability in **MongoDB**

SKILLS

Programming Languages: Java, Python, JS/TS, Bash, C, VHDL, PowerShell, C++, C#
Data Science: Tensorflow, NumPy, Pandas, Scikit-Learn, Matplotlib, Power BI
Full-Stack: React, React Native, JavaFX, Next.js, Express.js, Flask
DevOps & Databases: Azure, AWS, Docker, Git, MySQL, Apache Spark, Oracle, MongoDB, Firebase
Languages: Fluent in English, French, Persian; Intermediate in Spanish

PROJECTS

CodeML CN Challenge *Tensorflow, Scikit-Learn, Pandas, Matplotlib* github.com/peizheg/code-ml24

- Secured **first place** at **CodeML 2024** by developing a commodity demand prediction model for Canada and integrating Statistics Canada data using **Pandas**.
- Trained ML models using **TensorFlow** and **Scikit-Learn**, with the **Random Forest** model demonstrating superior performance, achieving a **93.48%** R^2 score and a **19.06%** SMAPE score