Matthew Flaherty

Canadian & US Citizen - matthewflaherty77@hotmail.com - 514-217-5883
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Portfolio: mattflahertyy.github.io/Portfolio-Website/

TECHNICAL SKILLS

Operating Systems: macOS, Windows, Linux, iOS
Applications & Tools: VS Code, MS Visual Studio, GitHub, Jira, Docker, Microsoft Azure, AWS, Figma, Power BI
Programming & Web Development: Java, C#, C, C++, Python, JavaScript, ReactJS, Typescript, HTML, SQL
Languages: English and French

EDUCATION

Bachelor of Engineering – Software Engineering   **(January 2022 – May 2025)**
Concordia University, Montreal, QC
  - Member of the Institute for Co-operative Education
  - **GPA: 3.84 – 2023-2024 Dean's List, graduated with distinction**
  - Relevant Courses: Data Structures & Algorithms, Object Oriented Programming, Data Analytics, AI/ML

WORK EXPERIENCE

CAE - Full Stack Developer Intern   **8 Months (September 2024 – April 2025)**
  - Designed and developed front-end components and pages for internal tools using ReactJS and TypeScript.
  - Engineered backend API endpoints in C# allowing consistent front-end integration and data transfer.
  - Created and optimized SQL scripts, developed and maintained database tables, views, and indexes to support robust data management and reporting.
  - Collaborated in an agile environment, participating in sprint planning, grooming, daily scrum meetings and code reviews to maintain a streamlined development process.

Phoenix Solutions - Junior Software Engineer (Internship)   **12 Months (May 2023 – May 2024)**
  - Developed an array of SQL queries to generate comprehensive product and inventory reports.
  - Crafted and implemented visual sales and inventory dashboards in Power BI using SQL queries.
  - Collaborated within a team to conceptualize and integrate innovative functionalities into the corporate website leveraging agile methodologies including sprint-based development, employing ReactJS, CSS, and BBj.
  - Conducted remote video conferences with customers to provide guidance on ODBC connection setups.

PERSONAL PROJECTS

Market ML Dashboard – Real-Time Stock Prediction (TypeScript, Python, React)   **(September 2025)**
GitHub: https://github.com/mattflahertyy/market-ML-dashboard
  - Built a real-time trading dashboard using FastAPI/WebSockets to stream live stock data to a React/Typescript frontend with *Lightweight Charts*, indicators (RSI, MACD), and trend analysis visualizations for insights.
  - Integrated *yfinance* and other financial APIs to display key valuation metrics (market cap, P/E rate, volatility).
  - Trained a machine learning model (scikit-learn) to predict price movements and compute risk metrics.
  - Designed a flexible backend architecture providing low-latency analytics integrated to simulate real life trading environments.

Facial Recognition – Artificial Intelligence (Python)   **(May 2024 – July 2024)**
GitHub: https://github.com/mattflahertyy/Machine-Learning-Facial-Recognition
  - Developed a preprocessing data pipeline to automate tasks like: duplicate removal, image resizing, and data splitting, optimizing the dataset for AI model training.
  - Trained and evaluated multiple Convolutional Neural Network (CNN) architectures.
  - Implemented cross-validation and early stopping to improve model accuracy and reduce overfitting.
  - Analyzed bias detection and mitigation based on race and gender metrics improving fairness through data augmentation and evaluation of performance across different demographics.