Yazdan Rasoulzadeh

raso8856@mylaurier.ca | linkedin.com/in/yaz-raso | github.com/YazRaso

Education

University of Waterloo & Wilfrid Laurier University
Bachelors of Computer Science & Business Administration Double Degree — *Waterloo, Ontario*

Projects

Calcite | *Python, Docker, Rasa, Qt, OpenPyXL* — June 2025

- Engineered an AI agent with Rasa to fully automate manual accounting workflows, saving users **5+** hours weekly
- Developed a **cross-platform** desktop application with a **polished** Qt(Pyside6) front-end and a containerized backend, enabling a smooth user experience while streamlining deployment
- Orchestrated an **automation pipeline** for payment confirmations, enabling end-to-end automation, powered by Twilio API

Centsi | *Python, XGBoost, Pandas, Streamlit* — March 2025

- Built an **XGBoost** model from scratch to predict payment default risk, achieving **85%** accuracy on test data using advanced feature engineering
- Integrated NLP-based market sentiment analysis leveraging Google Gemini API, improving prediction coverage by **15%**.
- Developed interactive Streamlit dashboards visualizing risk profiles and feature importance, enhancing stakeholder decision-making efficiency by **30%**.

HTTPS Server | *C, OpenSSL, Sockets* — April 2025

- Designed and implemented a robust HTTPS **server** in C using OpenSSL, handling secure TCP socket connections, parsing HTTP GET and POST requests, and ensuring reliable error handling and resource cleanup.
- Achieved **99.9%** uptime reliability in stress testing scenarios.
- Handled **1,000+** concurrent client connections during testing without performance degradation.

Battle Over Bins — Hackathon Winner | *Python, C++, Arduino* — February 2025

- Developed BOB, an interactive smart recycling bin that scans product barcodes to assess recyclability and provide real-time waste disposal guidance, addressing urban plastic waste challenges.
- Engineered hardware-software integration using Arduino, IR sensor, ultrasound sensor, joystick, and Streamlit frontend; leveraged Google Gemini AI API for product recyclability evaluation.
- Overcame hardware complexities and software development challenges to deliver a reliable, user-friendly system that monitors bin capacity and restricts use when full.

Technical Skills

Languages: Python, Java, JavaScript (React), Racket, C/C++, CSS
Developer Tools: Git, Google Colab, Jupyter Notebook, Kaggle, VS Code, Visual Studio, PyCharm, IntelliJ, WebStorm
Libraries: Pandas, NumPy, Matplotlib, Streamlit, Qt

Experience

Quantitative Analyst — Jan 2025 – April 2025
University of Waterloo Stocks Club — *Waterloo, Ontario*

- Proposed a Hidden Markov Model approach to enhance stock price movement predictions.
- Supported the algorithmic trading team by analyzing data and contributing to strategy development.
- Collaborated with team members to refine quantitative models for improved trading decisions.