Paul Pawelec

Portfolio: https://paulpawelec98.github.io/Portfolio/
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Email : paul_pawelec@hotmail.com
Mobile : +1-519-546-6215
Location: Guelph, Ontario (Open to Relocate)

Technical Skills

Languages: Python, R, SQL
Software: Google Workspace, MongoDB, Power BI, Tableau
Business Systems: Appcues, Grafana, Mailchimp, Recurly, Zapier
Developer Tools: Jupyter Notebook, R Markdown, R Studio, Spyder, Visual Studio Code
Libraries: keras, Matplotlib, NumPy, openpyxl, pandas, scikit-learn, pytorch, tensor-flow, dplyr, ggplot2, tidyverse
Machine Learning & Data Science: LLMs, Deep Learning, NLP, Supervised & Unsupervised Learning

Work Experience

Apziva — Remote, Ontario
Machine Learning Engineer (AI Resident) — January 2025 - Present

- Collaborating on machine learning projects as a resident at Apziva, leveraging professional mentorship to develop practical machine learning solutions and gain hands-on industry experience via 5+ projects for github.
- Reduced call time by 2,300 days while maintaining 82% accuracy and securing 1,658 subscribers using two layer machine learning system that leveraged caller data from a European bank.
- Developed and analyzed customer satisfaction datasets using Python and Jupyter Notebook, creating an 88% accurate classifier for customer happiness and suggesting improvements to survey questions for better respondent capture.

Nowsite — Toronto, Ontario
Data Analyst — June 2024 - Oct. 2024

- Worked directly with the executive team to leverage Python, MongoDB, and Excel for data manipulation, reporting, and analysis for development, finance, and operations tasks, delivering 30-60 minute ad-hoc insights consistently.
- Converted five manual reports into single-click, automated updates delivered daily within minutes by implementing scheduled tasks in Google Sheets and data workflows using Python, Google Cloud, and external APIs.
- Designed a Tkinter application in Python to automate ad-hoc data analysis and offload recurring tasks by fully automating workflows in Python, Excel, and online platforms, reducing prior manually intensive work to near zero.
- Note: Position concluded due to organizational restructuring.

University of Guelph — Guelph, Ontario
Economics Research Assistant — Sep. 2022 - May 2023

- Collaborated on accurate analysis and policy modeling for senior researchers by cleaning and organizing large datasets related to safeguards and tariffs from international databases and updated multiple workbooks weekly.
- Applied advanced economic models and analytical techniques to evaluate bond market returns across markets using Python and the Refinitiv Eikon API, consistently delivering weekly updates with minimal supervision.

Linamar Corporate — Guelph, Ontario
Data Analyst Co-op Student — Sep. 2020 - Dec. 2020 & May 2021 - Sep. 2021

- Assisted in data manipulation, reporting, data visualization and analysis using R, Excel, and Power BI for finance and operations-related projects and met and exceeded all deadlines on weekly progress updates.
- Validated tens of thousands of invoices for syntax and errors using algorithms, list-based rules, and regular expressions in R, and created consolidated report to view most common errors, catching 90% of errors.
- Designed an ensemble forecasting process for working capital and applied a ranking system using linear algebra and constrained optimization to identify top-performing models, improving accuracy by 5-7% over the benchmark.

Work Experience

Skyjack Guelph, Ontario
Accounting Co-op Student May 2019 - Jan. 2020

- Supported in the month-end and quarter-end close process, accounts payable and accounts receivable, and other general accounting while collaborating with 2-3 people in a fast-paced, deadline-driven environment.
- Recorded the collection of millions in cheques and intercompany payments, and inputted thousands of data entries with minor room for error into multiple ERP systems related to accounts receivable and payable.

Projects

Apziva: HR Candidate Rankings https://github.com/PaulPawelec98/zlBT8Ecb0bXsHFLn

- Project to rank candidates using Natural Language Processing (NLP) and Large Language Models (LLM).
- Applied tf-idf, word2vec, GloVe, fasttext, BERT and SBERT to create cosine similarity scores between word embedding vectors to identify relevance between job titles and target words with extension to penalty words.
- Created RankNet model using Pytorch and prompted LLMs (flan, Llama, ChatGPT, Grok, Deepseek, Qwen) to rank candidates with some extensions in fine-tuning and RAG.

Apziva: Bank Term Deposit Subscription Prediction: https://github.com/PaulPawelec98/oSP80QhjLoo0rytH

- Project focused on identifying potential customer subscriptions to term deposits using EU Bank Data.
- Applied logistic regression analysis to determine the most significant features and segmented customers using unsupervised methods like k-means, hierarchical algorithms, and DBSCAN to explain engagement patterns.
- Utilized supervised methods with scikit-learn like GaussianNB, XGBCLassifier, Perceptron, and NearestCentriod to further reduce redundant customers and refine the customer list for potential subscribers of term deposits.

Apziva: Customer Happiness Classification: https://github.com/PaulPawelec98/VL79YJ0xHsLhdkrc

- Project predicted customer satisfaction and delivery feedback from a logistics company's surveys.
- Used regression and non-linear models with sklearn like ExtraTreesClassifier, XGBClassifier, and LogisticRegression and optimized with hyperopt to beat baseline model performance by 10%.

University of Guelph: Canadian Youth Unemployment: https://paulpawelec98.github.io/Portfolio/projects.html

- Analyzed over 50 years of Labour Force Survey data from all Canadian provinces to identify a potential negative impact of federal and provincial wage increases on youth unemployment.

Tkinter Automation Tool: https://paulpawelec98.github.io/Portfolio/projects.html

- Developed a Tkinter-based GUI toolbox to streamline simple ad-hoc and recurring tasks, enabling users to easily organize, execute, and modify script variables without the need for an IDE.

Real-Time Strategy Game in Godot 4

- Designing a multiplayer medieval-fantasy strategy game with a sandbox-style experience. Core gameplay emphasizes resource and population management, with planned systems for economics, diplomacy, and espionage.
- Developed using Godot Engine (GDScript), group path-finding using A*, fog-of-war rendering via GPU shaders, applied composition and command-like system designs, and simple multiplayer networking via p2p and RPCs.

Education

University of Guelph – Gordon S. Lang School of Business & Economics Guelph, Ontario

- *Master of Arts - MA; Financial Economics; GPA: 3.7*
- *Bachelor of Commerce - BCom; Finance; GPA: 3.9*