

# Paul Pawelec

Guelph, ON

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## Summary of Skills

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- Proficient in Python and R for use in applied economics and finance, excelling in data analysis, forecasting and machine learning.
- Experienced in presenting and exploring data using Power BI, SQL, Excel, Tableau, PowerPoint, Jupyter Notes, and R Markdown.
- Proficient in Microsoft Excel, including pivot tables, VLOOKUPS, and basic macro programming for streamlined data analysis and automation.
- Swift to learn new concepts and processes, excelling in high-pressure, time-sensitive situations.

## Education

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### Master of Art, Economics with Finance Specialization

Sep '22 – May '23

*University of Guelph, 50 Stone Rd E, Guelph, ON*

- **Artificial Intelligence for Finance Course & Project:** Proficient in using python for data analysis of, linear regression and regularization, supervised and unsupervised learning, tree-based methods, and deep learning models relevant to financial applications. Incorporated techniques into a project based on classification of weekly stock returns.
- **Labor Economics Course & Project:** Empirical methods and Python programming for applied microeconomic analysis (**Linear Regression, Regression Discontinuity, and Fixed Effects**). Conducted a comprehensive Labor Project utilizing over 50 years of Labor Force Survey data to investigate the impact of Federal and Provincial wage increases on youth unemployment throughout Canada.
- **Special Topics in Finance Course:** Covered financial forecasting, modeling, and risk management with Python. Proficient in time series forecasting (**ARIMA**), volatility modeling (**ARCH, GARCH**), and deep learning models (**RNN, DL**) for finance.
- Teaching Assistant for Introduction to Econometrics, providing weekly R programming and econometric problem set support.
- Research Assistant for two projects: Data analysis on safeguard tariffs for US and Chinese trade and conducted data analysis for a paper on developing bond markets in 3<sup>rd</sup> world countries.

### Bachelor of Commerce, Management Economics and Finance (Co-op)

Sep '17 – May '22

*University of Guelph, 50 Stone Rd E, Guelph, ON*

- **Advance Topics in Finance Course & Project:** Proficient in using R for data analysis and machine learning methods relevant to economic and financial applications. Incorporated techniques into a project based on forecasting future bitcoin prices.
- **Advanced Financial Econometrics Course & Project:** Financial data with GARCH models, extensions, multivariate generalizations, stochastic volatility models, and realized volatility. Project focused on risk forecasting and optimizing portfolios for multiple equities using standardized methods.
- Completed courses in financial derivatives, advanced econometrics, business analytics, industrial organization, investments, and both advanced micro and macroeconomics.
- Graduated with distinction achieving a final 3.77 GPA.

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## Relative Experience

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### Linamar Corporate Data Analyst Co-op Position

May '21 - Sep '21 & Sep '20 - Dec '20

*Linamar Corporate, 287 Speedvale Ave W, Guelph, ON*

- Self-taught R programming to apply and create algorithms on existing datasets for outlier detection and hybrid forecast models, while documenting in R markdown files.
- Developed a forecast ranking method using linear optimization to empirically define the best model out of hundreds of thousands of unique forecast combinations.
- Implemented a potential method to quickly validate thousands of invoices for syntax and errors using algorithms and regular expressions in R.
- Automated performance analysis documents using a combination of R, Python, and Excel to process model performance in minutes saving hours of manual work.
- Created Power BI reports integrated with R visuals and R programs to visualize immense amounts of data and presented to senior executives.
- Finished both four months co-ops with outstanding reviews.

### Linamar Facility Accounting Co-op Position

May '19 - Jan '19

*Skyjack, 201 Woodlawn Road West, Guelph, ON*

- Assisted with month end and quarter end close process, accounts payable and accounts receivable, and other general accounting duties.
- Recorded the collection of millions in cheques, wires, and intercompany payments.
- Inputted thousands of data entries with minor room for error into multiple ERP systems.
- Worked independently and with teams of one to three in a fast-paced environment.
- Created and updated excel spreadsheets with VLOOKUPS, match index functions, pivot tables, and basic macros for new and existing processes.
- Finished the eight-month co-op with an outstanding review.

## Extra-Curricular Involvement

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### Extended Play (EP) Project

Aug '21 - Jun '22

*Guelph, ON*

- Engaged in weekly meetings with industry professionals on writing, recording, mixing, and mastering for the future EP.
- Researched industry recording techniques, such as digital audio workstations, plugins, mixing, and mastering.
- Developed knowledge on software such as Audacity, Guitar Pro Seven, EZ Drummer, and Reaper.
- Completed composing and recording six songs with bass, drums, rhythm, and lead guitars ready for mixing, mastering, and final release in June 2022 for all major platforms.