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**SUMMARY OF SKILLS**

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- **Economics/Finance Related Programming:** Proficient in Python and R for use in applied economics and finance, excelling in data analysis, portfolio optimization, forecasting, and modelling.
- **Machine Learning:** Proficient in the use of Python packages like scikit-learn in use for finance related machine learning applications (Regression, Trees, Neural Net).
- **Data Analysis and Visualization:** Experienced in presenting and exploring data using PowerPoint, Excel, Power BI, Tableau, SQL, Python, Jupyter Notes, R, and R Markdown.

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**EDUCATION**

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- **University of Guelph** Guelph, ON  
*Master of Arts in Economics; Avg. Grade: 83.5%* *Sep. 2022 – May. 2023*
  - **Artificial Intelligence for Finance Course & Project:** Proficient in using Python for data analysis, 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 micro-economic 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:** Introduction to Econometrics, providing weekly R programming and econometric problem set support.
  - **Research Assistant:** Data analysis on safeguard tariffs for US and Chinese trade and additional data analysis for a paper on developing bond markets in developing countries.
- **University of Guelph** Guelph, ON  
*Bachelor of Commerce in Management Economics and Finance; Avg. Grade: 85.5%* *Sep. 2017 – May. 2022*
  - **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.
  - **Relevant Courses Completed:** Financial derivatives, advanced econometrics, business analytics, industrial organization, investments, and both advanced micro and macroeconomics.

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**EXPERIENCE**

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- **Linamar Corporate** Guelph, ON  
*Data Analyst Co-op Student* *May 2021 - Sep. 2021 & Sep. 2020 - Dec. 2020*
  - **Duties:** Assisted with data manipulation, reporting, and analysis using R, Excel, and Power BI for finance/business related projects.
  - **Forecasting:** Contributed and created new models to forecast working capital and developed a forecast ranking method using linear optimization to empirically define the best model out of hundreds of thousands of unique forecast combinations.
  - **Outlier Detection:** Implemented a method to quickly validate tens of thousands of invoices for syntax and errors using algorithms, list based rules, and regular expressions in R.
  - **Excel Automation:** Automated performance analysis documents using a combination of R, Python, and Excel to process model performance in minutes saving hours of manual work.
  - **Data Visualization:** Created Power BI reports integrated with R visuals and R programs to visualize immense amounts of data and presented to senior executives.
  - **Overall Performance:** Recognized for a proactive approach and foresight, rapid adaptability, and curiosity for learning. Completed two consecutive four-month co-op positions, receiving outstanding performance reviews that emphasized contributions to project advancement.

• **Skyjack**

*Accounting Co-op Student*

Guelph, ON

*May 2019 - Jan. 2020*

- **Duties:** Assisted with month end and quarter end close process, accounts payable and accounts receivable, and other general accounting duties.
- **Accounts Receivables:** Recorded the collection of millions in cheques, wires, and intercompany payments.
- **Data Entry:** Inputted thousands of data entries with minor room for error into multiple ERP systems.
- **Collaborative:** Worked independently and with teams of one to three in a fast-paced environment.
- **Excel Proficiency:** Created and updated excel spreadsheets with VLOOKUPs, match index functions, pivot tables, and basic macros for new and existing processes.
- **Overall Performance:** Reliable and quick to learn, excellent performance under pressure, and consistently met deadlines. Completed two terms and received outstanding performance reviews.

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EXTRA-CURRICULAR INVOLVEMENT

• **Extended Play (EP) Project**

*Instrumental Guitarist*

Guelph, ON

*Aug. 2021 - Jun. 2022*

- **Industry Meetings:** Engaged in weekly meetings with industry professionals on writing, recording, mixing, and mastering for the future EP.
- **Recording Techniques:** Researched industry recording techniques, such as digital audio workstations, plugins, mixing, and mastering.
- **Recording Software:** Developed knowledge on software such as Audacity, Guitar Pro Seven, EZ Drummer, and Reaper.
- **Release:** 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.

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TECHNICAL SKILLS

**Languages:** Python, R

**Software:** Microsoft Office, Power BI, Tableau,

**Developer Tools:** Spyder, Jupyter Notes, R Studio, R Markdown, Visual Studio Code

**Python Libraries:** pandas, NumPy, Matplotlib, scikit-learn, keras

**R Libraries:** tidyverse, dplyr, ggplot2, glmnet, randomForest, gbm, knitr, pls, stargazer