Nicolas Harvie

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EDUCATION

University of Montreal – Higher Commercial Studies, Montreal, Canada 2021-2023
Masters of Science with Thesis, Finance, CGPA: 3.77/4.3
Dissertation: "Robust inference in linear asset pricing tests"
Under the supervision of Vincent Grégoire and Anthony Sanford

McGill University – Desautels Faculty of Management, Montreal, Canada 2017-2020
Bachelor of Commerce, Finance, CGPA: 3.60/4.00

WORK EXPERIENCE

University of Quebec in Montreal – Chair in Macroeconomics and Forecasting, Montreal, Canada 2023-Present
Intern Research Assistant, Machine Learning and Macroeconomic Forecasting
Under the supervision of Philippe Goulet-Coulombe & Dalibor Stevanovic

- Participate in the implementation of macroeconomic forecasting tools using standard and non-standard machine learning methods in Python and R such as neural networks, random forests and others.
- Contribute to the process of publishing and reviewing academic articles in artificial intelligence produced by the Chair.
- Exploit libraries such as Tensorflow, Keras, Pytorch and GluonTS for the creation of Deep Learning algorithms.
- Integrate multi-frequency data (MIDAS) into model estimation.
- Explore the literature relevant to the intersection between macroeconomic forecasting and artificial intelligence for a variety of applications.

University of Montreal – Higher Commercial Studies, Montreal, Canada 2023-Present
Research Assistant, Derivatives Products
Under the supervision of Christian Dorion

- Assist in the programming in Python of a risk assessment tool for complex and exotic derivatives using the Black-Scholes, Heston and other models.
- Ensure the proper functioning of the tool by having a developer perspective in the creation of test suites.

University of Montreal – Higher Commercial Studies, Montreal, Canada 2023-Present
Research Assistant, Sustainable Finance
Under the supervision of Iwan Meier

- Process and clean financial data from CRSP, Compustat as well as ESG databases.
- Replicate the conclusions of an event study on the impact of ESG news on returns.

University of Montreal – Higher Commercial Studies, Montreal, Canada 2022-Present
Teaching Assistant, Financial Econometrics (MATH 60210) and Empirical Finance (MATH 60207)
Under the supervision of Simon Van-Norden, Vincent Grégoire and Anthony Sanford

- Develop and teach practical work sessions on the computational application of econometric and statistical methods in finance.
- Assist in the creation of graded homeworks and final exams.
- Assist the professor by answering student questions about the course.
- Stay abreast of developments in statistics applied to finance, financial econometrics, data analysis and programming.

NBI-HEC Montreal Fund – Higher Commercial Studies, Montreal, Canada 2023-Present
Analyst, Research and Development

- Supervise a project on the econometric simulation of asset prices for the improvement of risk measures and the robustness of backtests.
- Assist investment teams with their fundamental research process and the computational implementation of their strategies.

University of Montreal – Higher Commercial Studies, Montreal, Canada 2022-2023
Research Assistant, Asset Pricing and Statistical Methods in Empirical Finance
Under the supervision of Vincent Grégoire

- Create a backtesting tool to replicate and supplement asset pricing research, specifically pertaining to factor models and market anomalies.
- Exploit and standardize CRSP academic databases to facilitate their use through Open Source tools.
- Synthesize and add to current course notes in statistics and empirical methods in order to write an Open Source book available to all.
- Review and modify the course, more particularly on the replication of stock market anomalies and machine learning.

National Bank of Canada, Montreal, Canada June 2021-April 2022
Back-Office Analyst

- Clearing transactions related to dividend payments.
- Engaging with counterparties to solve discrepancies in the books.
- Balancing accounts
- Evaluating the efficiency of processes and suggesting alternatives.

National Bank of Canada, Montreal, Canada November 2020-June 2021
Financial advisor, incoming calls

- Advising clients regarding their investments and personal finances
- Synthesizing information during discussions to bring innovative, personalized solutions using products and services offered by National Bank
- Following rigorously procedures, conformity measures and using computer systems adequately
- Assisting clients in their difficulties, problems and anxieties of every sort
- Following financial markets actively

LEADERSHIP AND EXTRACURRICULAR

College Montmorency, Laval, Canada 2021-Present
Former Student Mentor

- Support students aiming for the field of finance in their questions about their future career.
- Prepare and give conferences and workshops on the field of finance.

Schwartz & Reisman Scholar, Montreal & Israel Summer 2019

- Participated in a 3 weeks study trip comparing the Israeli and Canadian Fintech startup ecosystem
- Awarded “Most Innovative Problem Definition” and “Best Presentation” during Hackathon.

SKILLS AND INTERESTS

Computer: Python (Advanced), Tensorflow, Pytorch, Keras, R (Advanced), Matlab, Stata, SQL, Excel, Bloomberg Terminal, Interactive Brokers
Languages: French, English, beginner Spanish
Accreditations and Awards: UQAM Chair in Macroeconomics & Forecasting bursary (8500$), SSHRC Scholarship ($17,500), HEC Entrance Scholarship ($4,000), CFA Level 1 completed, CSC (Canadian Securities Course), FIC (Investment Funds in Canada)
Interests: Martial Arts, Music