Nicolas Harvie

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EDUCATION

University of Toronto - Rotman School of Management, Toronto, Canada September 2024 -
PhD, Finance

Université de Montréal – HEC Montréal, Montréal, Canada January 2021 - December 2023
Masters of Science with Thesis, Finance, CGPA: 3.77/4.3
Dissertation: "Size distortions in Robust Estimators: Implications for Asset Pricing"
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

Caisse de dépôt et placement du Québec - Montréal, Canada January 2024 - April 2024
Intern Data Scientist, Quantitative Investments
- Design equity investment signals by integrating fundamental, market, and alternative data, utilizing Python and SQL for analysis.
- Contribute to the innovation of statistical methodologies in assessing the significance of potential predictors of excess returns.
- Develop an Autoregressive Distributed Lag (ARDL) model to predict global agricultural land prices, incorporating comprehensive economic and pricing data.
- Testing a generative AI model for quantitative investing strategies, leveraging Retriever-Answer Generator (RAG) architecture and asset pricing research.

Université de Montréal – HEC Montréal, Montréal, Canada 2022 - 2023
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.

Université de Montréal – HEC Montréal Chair in Sustainable Finance, Montréal, Canada June 2023 - December 2023
Research Assistant, Sustainable Finance
Under the supervision of Iwan Meier
- Process and clean financial data from CRSP, Compustat and ESG databases in Python.
- Conduct the statistical analysis for an upcoming study on linking fund managers' asset allocation decisions to carbon emissions.
- Make key decisions when faced with missing observations, problematic database merges and many other typical problems in empirically-oriented financial research.

University du Québec à Montréal – Chair in Macroeconomics and Forecasting, Montréal, Canada May 2023 - September 2023
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.

Université de Montréal – HEC Montréal, Montréal, Canada May 2023 - September 2023
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.

Université de Montréal – HEC Montréal, Montréal, 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.
- 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.

NBI-HEC Montréal Fund – HEC Montréal, Montréal, Canada 2022-2023
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.

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: Music, Arts, Literature, Cinema, Fitness, Martial Arts