

Bilal Raja, MFI (expected 2022)

bilal.raja@mail.utoronto.ca – (647) 960-9342 LinkedIn Profile www.linkedin.com/in/bilal-raja-007/

HIGHLIGHTS OF QUALIFICATIONS

- Strong background in statistical estimation, time series modelling, model validation and data visualization methods.
- Exceptional presentation skills demonstrated by lecturing graduate level statistics research topics to guests/professors.
- Computer skills: SQL, MATLAB, R, Python, Microsoft Office (Word, PowerPoint and Excel).
- Excellent team-leading and team-player organizational skills, ability to manage multiple projects and strong relationship building skillset.

EDUCATION

Candidate, Master of Financial Insurance 2021 – 2022

University of Toronto, Statistical Sciences

Relevant Courses: (Data Science for Risk Modelling and Data Analytics in Practice)

(Honours) Bachelors of Science 2021

Specialist in Statistics Quantitative Finance

University of Toronto, Statistical Sciences

Relevant Courses: (Applied Time Series Analysis and Multivariate Analysis)

AWARDS (AND ACHIEVEMENTS)

- Major GPA: 3.85/4 2021
- Dean's List 2020-2021

PROJECTS

Statistics Projects

Forecasting the Stock Market 2022

- Investigated which are the best predictive models when forecasting SP500 and inflation using US macro panel. Cleaned and transformed time series data for analysis. Forecasted the target variables using a variety of models and found the best candidate for forecasting both target variables. Created reports about different approaches and presented topic.

Deep Hedging and Valuation 2021

- Investigated how the structure of Artificial Neural Networks affect the hedging of a bull spread strategy using pytorch. Compared with Recurrent Neural Networks and the Black Scholes model as benchmark. Found minimum price adjustment to achieve an arbitrary conditional Value-at-Risk in the profit and loss.

Estimating Uncertainty Shocks 2021

- Cleaned and transformed macroeconomic and financial time series data to estimate uncertainty shocks. Showed impulse response function of factors for 4 years ahead with point estimates and confidence bands. Used macro-economic and investment knowledge to interpret why certain variables have more of an effect than others.

Statistics Readings and Presentations: Random Projections 2020

- Created presentations on research paper: Randomized Algorithms and Optimization in a series of mini-lectures to supervisor and guest graduate students. Pitched random projections as a solution as to using large data frames to capture inferences regarding the data.

EXTRACURRICULAR ACTIVITIES

Markham YMCA 04/2013 – 08/2021

Staff and Volunteer, Health and Fitness

- Created workshops for 20+ youth to develop their leadership skills improving their employability and soft skillset.
- Led presentations with youth bringing awareness to challenges faced in the local community and viable solutions.
- Assisted youth with an annual 'Civic Action' project identifying possible issues that local youth face, the potential solutions regarding those issues and their advantages/disadvantages.