Shawn S. Unger

unger.shawn.s@gmail.com | (647) 838-4640 | github.com/ssunger

Education and Awards

Ph.D. Statistical Sciences – University of Toronto *Aug 2019 – Sept 2020 (on leave)*

M.Sc. Statistical Sciences – University of Toronto *Sep 2018 – Aug 2019*

H.B.Sc. Mathematics, Statistics, and Economics – University of Toronto *Sep 2014 – May 2018*

- Enhanced Triple Major, Graduated with High Distinction

CFA Institute

- Level 1 *Dec 2019*

Graduate Machine Learning Course, Fields Institute of Research, Toronto *Winter 2019*

Awards and Other Course Work

- Dean's List designation (Entire Undergrad) and President's Entrance Scholarship (2014)
- 1st place at Hackathon for BlackRock West Coast Offices (Summer 2017)

Professional Experience

Quantitative Researcher, Public Equities, TD Asset Management, Toronto *May 2019 - Present*

- Built models to predict the performance of fundamental, statistical, and macro factors as well as the attribution to the historical asset and portfolio performance, which is now used for assessing portfolio factor exposure
- Brought forward multiple academic papers and as well costume alternative datasets to generate unique market signals, resulted in generating new alpha signals that are now part of the inhouse global factor model
- Developed costume risk models that are being used for reactive risk managemenst, active decision making on portfolio trades and rebalances consideration in terms of active positions, and various market exposures
- Engineered four Stat, ML, and Data Science Python and R packages, as well data pipelines for APIs and SQL servers, to calculate statistical metrics, signal data, and create portfolio reports, used for reproduction of work, model implementation, and speeding up computation by up to 100x the speed of standard python packages

Quantitative Researcher, RiskLab, Toronto *Feb 2018 –May 2019*

- Researched NLP based Machine Learning algorithms for sentiment analysis for ESG based market signals
- Built portfolio construction methodology for exotic assets using unsupervised learning for asset indexing
- Developed a hedging strategy for currency layover using Deep Learning and Markov Switching Models

Teaching Assistant, Mathematics and Statistics Department, University of Toronto *May 2018 – May 2019*

(1) Statistical Methods for Machine Learning (2) Statistics for Computer Science (3) The Practice of Statics II
(4) Mathematics of Investments and Credit (5) Calculus and Linear Algebra for Commerce

Research Assistant, Economics Department, University of Toronto *May 2016 – Feb 2018*

Intern Analyst, Portfolio Analytics Group, BlackRock, San Francisco *Jun 2017 – Aug 2017*

- Designed machine learning based equity market indexing algorithm to generate investible ETF products

Research Analyst, Levin Consulting Group, Toronto *Jun 2015 – Aug 2016*

Intern Analyst, Global Cash Management, Bank of Montreal, Toronto *May 2016 – Aug 2016*

Intern, Investment Accounting, WSIB, Toronto *May 2015 – Aug 2015*

Non-Professional Experience

Mentor, University of Toronto Statistics Department, Toronto *Sept 2021 - Present*

Judge, Data Fest (Dat Science Competition), University of Toronto *June 2020*

Boxing Coach, University of Toronto Boxing Club, Toronto *Oct 2015 – May 2019*

Student Mentor, University of Toronto Statistics Department, Toronto *Oct 2016 – Apr 2017*