# Mufan (Bill) Li

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#### **EDUCATION**

University of Toronto

June 2016

M.Sc. in Statistics

GPA: 3.96

Courses: Real Analysis I, Probability Theory I&II, MCMC Methods, Time Series

# University of Toronto

June 2015

B.A.Sc. in Engineering Science, Electrical and Computer Engineering

GPA: 3.66

Courses: Random Process, Systems Control, Pricing Theory, Inference Algorithms, PDE

Thesis: Numerical PDE Methods for Pricing American Put Options

#### **EXPERIENCE**

## Ontario Teachers' Pension Plan

July 2016 - Present

Investment Analyst. Global Credit Products

Toronto, ON

- · Supported trading activity in credit volatility, convertible arbitrage, and beta portfolio
- · Model credit risk premiums on a macro scale for a beta based corporate credit portfolio
- · Design, optimize, and back-tested systematic trading strategies for credit derivatives

#### **RBC** Capital Markets

May 2013 - August 2014

Analyst, Electronic and Algorithmic Trading

Toronto, ON

- · Produced a monthly Market Microstructure publication by processing raw quotes and trades data
- Analyzed exchange routing logic by types and cost of execution for dark pool oriented strategies

#### RESEARCH

## **Numerical Methods for PDEs**

Jan 2014 - July 2016

Supervisor: Professor Christina Christara

Toronto, ON

· When time-stepping in the solution of an initial value problem, the mesh points for discretization can be adaptively redistributed to minimize approximation error as the solution evolves. The project is exploring this type of adaptive techniques, specifically for the Black-Scholes PDE with the Heston model of stochastic volatility.

Collaborative Filtering Approach to Understanding Student GPA July 2015 - April 2016 Supervisor: Professor Jeffrey Rosenthal Toronto, ON

Using unsupervised learning methods to infer grades for courses not taken, with intention to better understand student preferences for selecting courses and specialization. Techniques used for investigation include matrix factorization, restricted Boltzmann machines, and auto-encoders.

#### ADDITIONAL

Quantathon 2nd Place Trading algorithm design, with M. Ren and J. Nijjer (2015)

2011, 2012, 2013, 2015 Dean's List **Programming Languages** Python, R, MATLAB, C

Guitar, Cocktail Mixing, Calligraphy, Starcraft

Interests