

# Mufan (Bill) Li

<https://mufan-li.github.io>

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## EDUCATION

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### University of Toronto

Sept 2017 - Expected 2021

Ph.D. in Statistics

Courses: PAC-Learning, PDE, Pricing Theory

Research: Statistical Learning Theory

### University of Toronto

June 2016

M.Sc. in Statistics - GPA: 3.96

Courses: Real Analysis, Probability Theory, MCMC Methods, Time Series

### University of Toronto

June 2015

B.A.Sc. in Engineering Science, Electrical and Computer Engineering - GPA: 3.66

Courses: Stochastic Process, Systems Control, Machine Learning, PDE

Thesis: Numerical PDE Methods for Pricing American Put Options

## EXPERIENCE

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### Ontario Teachers' Pension Plan

July 2016 - July 2017

*Investment Analyst, Global Credit Products*

*Toronto, ON*

- Modeled US corporate credit risk premiums and credit curve steepness
- Back-tested systematic trading strategies for credit derivatives

### RBC Capital Markets

May 2013 - August 2014

*Intern, 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

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### Collaborative Filtering Approach to Understanding Student GPA

July 2015 - April 2016

*Supervisor: Professor Jeffrey Rosenthal*

*Toronto, ON*

- Using unsupervised learning methods to infer grades and course selection
- Techniques include matrix factorization, restricted Boltzmann machines, and auto-encoders

### Numerical Methods for PDEs

Jan 2014 - August 2015

*Supervisor: Professor Christina Christara*

*Toronto, ON*

- Investigated adaptive mesh PDE methods for pricing American options
- Implemented solver for the Heston model of stochastic volatility

## ADDITIONAL

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### Quantathon 2nd Place

Trading algorithm design, with M. Ren and J. Nijjer (2015)

### Dean's List

2011, 2012, 2013, 2015

### Programming Languages

Python, R, MATLAB, C

### Interests

Guitar, Cocktail Mixing, Calligraphy, Starcraft