Ben Rifkind

phone: 647 707 5936

Skills Languages: Java, Mathematica, Python, R

Analysis: probability, statistical theory, and machine learning.

EDUCATION Ph.D., University of Toronto, Mathematics, September 2014

M.Sc., University of Toronto, Mathematics, August 2008

B.Sc., University of Toronto, Honours Double Major in Physics and Mathematics, May 2007

EXPERIENCE

The Data Incubator, Washington DC 2015: Attended a six week training program for STEM PhD's transitioning to the data science industry. Worked on a series of projects to build skills including: web-scraping, NLP, SQL, data frame manipulation, machine learning modelling, MapReduce, and time series prediction. Code available upon request.

Phd Researcher: Conducted independent and original research into diverse theoretical fields in probability. Topics included large random matrices, stochastic differential equations, and random fractals. Developed wide knowledge of probability especially the fundamentals like distribution theory, laws of large numbers, large deviations, martingales, Markov chain Monte Carlo, and Brownian motion.

The Shape of the Eigenvectors of the Random Schrödinger Operator (preprint), Rifkind, B. & Virág, B.

Diffusions of Multiplicative Cascades, Alberts T. & Rifkind B., Stochastic Processes and their Applications, **124**, no. 2, 1141-1169. (2014).

Instructor: Applied Differential Equations, University of Toronto, Mississauga, 2015 Sole instructor of a class of 45 third year university students. Responsible for all aspects of the course. Prepared lectures, evaluations, and dealt with student issues.

Instructor: Calculus I, University of Toronto, 2012.

Prepared and presented material to a class of 150 first year university students. As part of a team of 5 other instructors also helped in designing evaluations including problem sets, midterms, and a final exam.

Teaching Assistant: Multiple courses, 2009-2014

Evaluated assignments and midterms. Ran mid-sized tutorials which involved answering students' questions and presenting solutions to problems.

Honors and Awards Queen Elizabeth II Graduate Scholarship (2014), Blyth Fellowship (2009-2014), Ontario Graduate Scholarship (2008), National Science and Engineering Research Award (2005 & 2006).