WILLIAM KONG

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Summary

- Excellent understanding of financial concepts and theory
- Comfortable and familiar with mathematical rigour and computational mathematics
- Solid understanding of statistics including time series models
- Strong programming and database skills
- Able to work well individually or collaboratively in a team
- Adept at multitasking and managing multiple concurrent projects

Programming Languages

- Natively spoken R and Haskell
- Experience with Matlab, LaTeX, SQL, VBA, and Python
- Dabbled in C/C^{++}, Git, and Scheme (Lisp)

Work Experience

Risk Modeling Analyst September 2013 – December 2013
TD Bank Financial Group, Toronto ON

- Validated and audited credit risk models using *SAS* and *R*
- Developed custom benchmark models and numerical algorithms to test the validity of Basel II and Basel III risk-metrics using time series analysis and *R*
- Designed multiple *SAS* queries to perform aggregate data and statistical analysis

Enterprise Risk Management Intern January 2013 – April 2013
TD Bank Financial Group, Toronto ON

- Lead developer of an interactive business intelligence dashboard, programmed in *SQL* and Tableau
- Developed *VBA* macros to optimize several periodic risk reports by up to 61% and 99
- Programmed *R* scripts to validate and transform monthly data used in TD's front end risk metrics
- Designed multiple *SQL* queries to perform data regression and variance analysis

Defined Benefits Pension Analyst April 2012 – August 2012
Morneau Shepell, Toronto ON

- Improved existing spreadsheets using *VBA* by up to 40% in time efficiency
- Calculated and analyzed actuarial valuations of pension figures for 4 teams spanning 8 companies
- Independently completed special calculations and year-end annual reporting projects
- Performed data validations on Morneau Shepell's internal databases to ensure client data integrity

Education

Candidate for Bachelor of Mathematics September 2010 - December 2015
Major GPA : 3.85, Major Average: 88.13%

University of Waterloo, Waterloo ON

- Professional Risk Management Program September 2010 - Present
- Mathematical Finance Program, Statistics Minor May 2011 - Present

Relevant Courses: Forecasting, Differential Equations, Measure Theory, Advanced Optimization, Numerical Methods for Finance, Mathematical Models for Finance, Data Analysis (Online)

Professional Certifications: Passed two Society of Actuaries exams (P, FM)

Independent Projects

Project Euler Competitor January 2013 - Present
- Actively competing in an international mathematics and computer science problem repository
- Ranked in the top 10% using the programming language *Haskell*

Data Mining Algorithm July 2012
- Programmed a data miner in *VBA* to mine pension valuation rates from the Bank of Canada

Vanilla Options Simulator November 2011
- Programmed an options and stock simulator in *Python* using the Black-Scholes model and Monte Carlo methods

Awards & Scholarships

- Top Quartile Participant of the Bloomberg Assessment Test (BAT) 2013
- Queen Elizabeth II Aiming for the Top Scholarship 2013, 2012, 2011, 2010
- Waterloo President's Scholarship 2010

Activities & Interests

President, UW Mathematical Finance Student Association 2014
VP of Finance, UW Mathematical Finance Student Association 2013 - 2014
Senior Member, University of Waterloo's Tae Kwon Do Club 2010 - Present