

WILLIAM KONG

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Summary

- » Excellent understanding of risk management concepts and theory
- » Comfortable and familiar with mathematical rigour and computational mathematics
- » Solid understanding of statistics and 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 SAS, R, SQL, and Haskell
- » Experience with UNIX (AIX), Matlab, \LaTeX , VBA, and Python
- » Dabbled in C/C++, Git, and Scheme (Lisp)

Work Experience

Risk Modeling Analyst

May 2014 – August 2014

TD Bank Financial Group, Toronto ON

- » Developed production-ready code and macroeconomic models in SAS and R for use in Basel II and Dodd Frank Act risk reporting as well as internal and regulatory retail credit risk stress tests
- » Created in-house algorithms and models to test the validity of Basel II and III AIRB retail risk-metrics using SAS and R
- » Designed several SQL and SAS data queries to create aggregate data models and validation datasets
- » Produced technical documentation for various risk metrics models as well as internal and regulatory stress test procedures

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 AIRB retail 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% in time and memory efficiency respectively
- » 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, Databases, Mathematical Models for Finance, Corporate Finance, Asset-Liability Management, 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 2010 - 2013
- » 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, UW Tae Kwon Do Club

2010 - Present