TAWSIF KHAN

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PROFILE

An inquisitive quantitative analyst with a background in engineering and mathematics. Dedicated and passionate, enjoys research, mathematical analysis and solving problems that require critical thinking.

WORK EXPERIENCE

08/2017 - present

Consultant, Financial Analytics
Aimia Inc., Toronto, Canada
- Develop analytic models and derive insights to drive Aeroplan member engagement in the Amex and CIBC portfolio
- Work with account management and marketing to design profitable campaigns
- Perform post-campaign analysis to derive key insights and actionable recommendations

12/2015 – 07/2017

Client Analyst
McKinsey PriceMetrix Co., Toronto, Canada
- Design performance benchmarking models to help wealth management firms and advisors make fact based decisions
- Develop efficient automated systems to generate quantitative reports for financial advisors
- Communicate with Client Managers and brainstorm ideas for executive reviews of major wealth management firms in the North American industry
- Served Scotia Wealth Management, Desjardins, Odlum Brown and other wealth management firms as the lead analyst in executive reviews

2013 – 2015

Research Assistant
University of Waterloo, Waterloo, Canada
- Responsible for independent and collaborative research in the Control of Infinite dimensional Systems group
- Presented and critiqued concepts and results in regular research group meetings

2011 – 2015

Teaching Assistant
University of Waterloo/North South University
- Communicated complex concepts with students during tutorials of 50+ enrollment
- Evaluated exam scripts, developed marking rubrics, managed undergraduate markers
- Individually organized tutorial sessions for students beyond regular duties
- Received exceptional reviews from students and instructors

2014 – 2015

Representative
Student Technology Advisory Committee, GSA, UW
- Collaboratively reviewed campus technical projects

2010 – 2011

Volunteer
CommunityAction, Bangladesh
- Successfully managed several community projects including the development project of a rural school
- Organized a number of fund raising campaigns

EDUCATION

2013 – 2015

MMath in Applied Mathematics
University of Waterloo, Waterloo, Canada

2008 – 2013

BS in Electrical Engineering
North South University, Dhaka, Bangladesh

SKILLS

Functional

SQL, R, Python, SAS
Data Visualization
Predictive Analytics

Industry Experience

Wealth Management
Loyalty Analytics
Credit Card Analytics

AWARDS

2015 **Champion**
Traffic Jam Toronto Hackathon, City of Toronto
- Analyzed the unreliability of Toronto road network using Toronto Transit data and located the 50 most unreliable locations of the city which require attention to control traffic congestion. Python and R were used for the project. Team received a prize money of $5000.

2015 **3 Minute Thesis Finalist**
University of Waterloo
- Represented Faculty of Mathematics in the 2015 University of Waterloo 3MT finals
- Explained the breadth and significance of my thesis to a non-specialist audience
- *URL - https://www.youtube.com/watch?v=u34rAAUxuPE*

2013 **Summa Cum Laude**
North South University

2008 **Daily Star Certificate of Excellence**
GCE O and A Level

PROJECTS

McKinsey PriceMetrix Co.
- Developed an automated system using SQL to compute a comprehensive list of performance measures for a given client benchmarked against the industry
- Replicated an in-house software using SQL and VBA for the analytics team which allows more customizability

TJTO Hackathon
- Collaboratively analyzed Toronto transit data to locate unreliable spots in Toronto's road network

Machine Learning
- Random Forest Classifier to determine the Cuisine using ingredients as feature (Kaggle project)
- Independently developed a game, Get The Odds, on MATLAB using Min-Max Algorithm
- Collaboratively developed an Image Pixel Classifier on MATLAB using neural networks

MMath Thesis
- Developed software using MATLAB for optimal state estimation of a dispersive wave equation (*Tags: Kalman filter, Navier-Stokes, Optimal Control, Finite Element Method*)

Bloomberg Hackathon
- Implemented an algorithm using MATLAB and an interface using Python to make intelligent buying-selling orders of stock in the UW Bloomberg Algorithmic Trading competition

BS. Thesis
- Numerically solved 2D Navier-Stokes equation using Fortran to simulate blood flow.

PUBLICATIONS

Computation of the optimal sensor location for the estimation of an 1-D linear dispersive wave equation
American Control Conference
http://ieeexplore.ieee.org/document/7172162/?reload=true