

# TAWSIF KHAN

Uber Data Science | Master of Mathematics

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## EXPERIENCE

### Product Analyst II

Uber

06/2019 - Ongoing

Transportation platform company

- Defined a set of metrics, implemented data pipelines and built a dashboard to help monitor Uber's payment systems which identified issues that improved collection rates by 40 bps.
- Built an anomaly detection system for Uber's weekly payments that reduced Operations time consumption by more than 80%.

### Senior Data Analyst

Rubikloud

05/2018 - 05/2019

Retail based Artificial Intelligence Product Startup

- Built the campaign measurement module that measured all client campaigns with Rubikloud's product recommendations.
- Evaluated the performance of machine learning models and recommend model improvements.
- Built a model to measure the financial impact of Rubikloud's product that drove demo, pilot and subscription renewal agreements.

### Analytics Consultant

Aimia

08/2017 - 05/2018

Marketing and Loyalty Analytics Company

- Developed profitable campaigns with personalized offers that reduce churn and improve member engagement in the Amex and CIBC Aeroplan portfolio
- Performed business reviews for partners and perform post-campaign analysis to derive key insights and actionable recommendations

### Client Analyst

McKinsey Pricematrix

12/2015 - 08/2017

Product company helping financial advisors growth using analytics

- Developed automated systems to generate financial advisor reports that reduced human errors and time consumption by 90%.
- Led the analytics performed for executive reviews of major wealth management firms in the North American industry.

### Research Assistant

University of Waterloo

09/2013 - 08/2015

- Carried out independent and collaborative research in the Control of Infinite-dimensional Systems group.
- Presented and critiqued concepts and results in regular research group meetings.

## EDUCATION

### MMath, Applied Mathematics

University of Waterloo

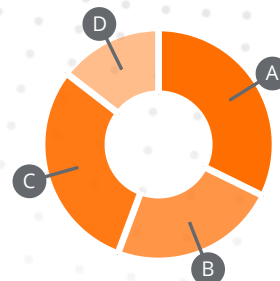
09/2013 - 08/2015

### BS, Electrical Engineering

North South University

05/2008 - 03/2013

## MY TIME



- A Design and implement experiments for new product changes
- B Work with Product and Engineering to solve problems and identify opportunities
- C Design metrics, implement data pipelines, build datasets and dashboards
- D Help Operations solve service outages impacting payments

## SKILLS

### Tech Stack

Python SQL Presto Hive R  
Jupyter Notebook Data Pipeline  
Data Visualization MATLAB PySpark

### Industry Acumen

Experimental Design Metric Design  
Mathematical Modelling Payments  
Credit Cards Retail Loyalty

## AWARDS

- TrafficJam Hackathon 2015 Winner
- Three Minute Thesis Finalist  
University of Waterloo
- Summa Cum Laude  
North South University
- Daily Star Certificate of Excellence

## Uber Partner Payments Anomaly Detection

Uber disburses payments to millions of partners (drivers and eats merchant restaurants) every week in more than 60 countries. I built a decision engine to identify payments that are anomalous and worked with the engineers to implement a fully functioning tool that stops anomalous payment going out automatically.

## Campaign Measurement Module

Built a Python module to measure campaigns in a standardized manner. Functions include bootstrapped estimation, significance testing for binomial and non-binomial metrics, outlier handling and etc.

🔗 <https://github.com/tawsifkhan/Campaign-Measurement-Module>

## Rainbow Railroad Data Philanthropy

Led a team of 13 in Aimia's 2018 Data Philanthropy event. Built a data cleaning and segmentation tool using R, and lead other 5 objective streams to deliver a full suite of operational improvement solutions to Rainbow Railroad, a Canadian charitable organization

## Bootstrapping Data for Significance Testing

Introduced and implemented the concept of bootstrapping data to carry out significance testing on non-normal and non-binomial data sets

## TrafficJam Hackathon 2015

Measured the variance of speeds from transit data to map the unreliability of Toronto's road network. This insight would allow commuters to make more informed route choices, and city planners plan events/constructions accordingly. The team won prize money of \$5000.

## Other Data Related Projects

- Used RShiny to create a visualization tool for the global terrorism database
- Implemented a TFIDF driven gradient boosting regression model for Kaggle Mercari Price Suggestion Challenge
- Implemented a random forest classifier with some feature engineering for Kaggle What's Cooking Machine Learning Challenge
- Built a twitter data scrapper, cleaned the data and geo-tagged the tweets to carry out some analysis

## Optimal Sensing of Wave Equation

American Control Conference

📅 07/2015 🔗 <https://bit.ly/2HvD0YG>

## Bootstrapping Data for Significance Testing

Rubikloud Technologies

📅 07/2018 🔗 <https://bit.ly/2RgmA6h>

## MY LIFE PHILOSOPHY ---

*The joy of life comes from our encounters  
with new experiences*

Christopher McCandless