

# TAWSIF KHAN

Uber Data Science | Master of Mathematics

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## EXPERIENCE

### Product Analyst II

Uber

06/2019 - 06/2020

Transportation platform company

- Managed the monitored rollout of a multi-million dollar payments project internationally
- Defined a set of metrics and built a dashboard to monitor Uber's payment systems which identified issues that improved collection rates by 0.40%
- Implemented data pipelines to merge payments data from multiple platforms and external sources
- 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 startup

- Built the campaign measurement module that measured all client campaigns that use Rubikloud's product recommendations.
- Evaluated the performance of machine learning models and recommended model improvements.
- Built a model to measure the financial impact of Rubikloud's product that drove client acquisition and retention.

### 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.

## EDUCATION

### MMath, Applied Mathematics

University of Waterloo

09/2013 - 08/2015

### BS, Electrical Engineering

North South University

05/2008 - 03/2013

## MY TIME



### Experimentation

Work with product managers and engineers to design and implement experiments



### Product Strategy

Partner with Product in identifying opportunities and generate insights to drive the development process



### Data Engineering

Partner with Engineering in improving the data warehouse by building new datasets



### System Performance

Help Operations and Engineering improve system performance and reliability, measure any impact due to outages and recommend solutions where necessary

## SKILLS

### Tech Stack

Python

SQL

Presto

Hive

R

Jupyter Notebook

ETL 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