# Sourav Biswas

™ sourav.j.biswas@gmail.com

□ 519-888-9891

☐ sravb.github.io

# **Experience**

**BMO Capital Markets** – *Quantitative Analyst* 

Toronto, Ontario - Apr 2018 – Aug 2018

- Yielded a credit positive for BMO by developing the blockchain platform used in the first ever blockchain bond issuance in Canada
- Built machine learning models to predict demand for US treasury bonds with Python & Scikit-Learn
- Created VueJS data visualization models for institutional clients to analyze the Canadian bond market
- Implemented bond analytics tools using real time data from internal web sockets
- Reduced loading times by 97% by improving web socket infrastructure & simplifying network calls
- Automated emails using C# scripts and job schedulers, saving hours of manual work

Sir John A. Macdonald S.S. – Computer Science Instructor

Waterloo, Ontario - Jun 2016 - Jun 2017

- Improved class attendance by 40% (50 to 70 students) through restructuring curriculum
- Designed and delivered weekly lessons on programming languages and computer science concepts

# **Projects**

**SumNotes** Sep 2017

- Created a web app that autonomously takes summarized notes in lectures or meetings
- Won Hack the North 2017 Best Use of Cockroach Database
- Implemented a user login system with SQL

**BlockChainge** Jun 2018

- Built a full stack decentralized fundraising platform on Ethereum for donations & crowdsourcing
- Reduced donation fees by 99% compared to traditional platforms
- Implemented a tier based payout system & document upload with IPFS to increase transparency

Algorithmic Trading

Jul 2017

- Developed a machine learning stock trading algorithm with a Decision Tree classifier
- Predicted stock price movements with 75% accuracy
- Accessed stock data using the Google Finance API & Pandas

#### **NBA Predictive Analytics**

Dec 2017

- Created a data visualization tool to help coaches detect areas of the court to prioritize defense
- Simulated players' shooting with machine learning using K-Nearest Neighbours
- Analyzed NBA players' gameplay by data mining shooting data

## **Education**

## **University of Waterloo**

(Expected) 2017 – 2022

Bachelors of Computer Science - Software Engineering Option

Cumulative Average – 4.0 GPA (Dean's Honours List – 2017 & 2018)

### Wilfrid Laurier University

(Expected) 2017 – 2022

Bachelors of Business Administration - Finance Concentration

Cumulative Average – 4.0 GPA (Dean's Honours List – 2017 & 2018)

#### Skills

Python, Java, C, C++, C#, HTML/CSS, JavaScript (Node, iQuery, Vue, React), Git, Linux, Scheme, SQL, Android, Firebase, Scikit-Learn, Pandas, Matplotlib, Jupyter Notebook

#### **Awards**

- Schulich Leader Scholarship Offered \$80 000 by Western University for STEM leadership
- René Descartes National Scholarship Awarded \$25 000 by University of Waterloo for math merit
- Governor General's Academic Medal Ranked 1<sup>st</sup> out of 250 students in academic standing
- ECOO Programming Provincial Finals Placed 9<sup>th</sup> out of 400+ teams across Ontario
- Galois Math Contest Ranked top 0.5% in the world