

# Sourav Biswas

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## Experience

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### BMO Capital Markets – Quantitative Analyst

Toronto, Ontario • Apr 2018 – Aug 2018

- **Boosted BMO's credit rating** by developing the blockchain platform used in **the first ever blockchain bond issuance in Canada**
- Built machine learning models to predict demand in US treasury bond auctions using Scikit-Learn
- Created 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

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### 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

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### University of Waterloo

(Expected) 2017 – 2022

Bachelors of Computer Science – Software Engineering Option

- Cumulative Average – 91.0% (Dean's Honours List – Fall 2017, Winter 2018)

### Wilfrid Laurier University

(Expected) 2017 – 2022

Bachelors of Business Administration – Finance Concentration

- Cumulative Average – 91.0% (Dean's Honours List – Fall 2017, Winter 2018)

## Skills

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

## Awards

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