

Sourav Biswas

✉ sourav.j.biswas@gmail.com

🌐 [linkedin.com/in/sravb](https://www.linkedin.com/in/sravb)

🐙 github.com/sravb

📄 sravb.github.io

Experience

NVIDIA – *Incoming Research Scientist Intern*

Toronto, Ontario · Starting May 2021

- Upcoming internship at NVIDIA AI lab (Advisor: Sanja Fidler)

Uber ATG – *Machine Learning Research Intern*

Toronto, Ontario · Jan 2020 – Jun 2020

- Designed novel machine learning algorithms for self-driving vehicles (Advisor: Raquel Urtasun)
- **Improved LiDAR stream compression 7-17%** by creating state-of-the-art deep learning architecture
- Developed deep learning models with **Pytorch / C++** and created visualizations with **Open3D**

Wish – *Software Engineer Intern*

San Francisco, California · Jan 2019 – Apr 2019

- **Saved ~\$2 million/year** by re-designing order refund tools to prevent incorrect refunds
- Simplified server architecture & **lowered repeat customer support cases 27%**, cutting support costs
- **Reduced audit times over 67%** by adding hotkey functionality to web based internal tools

BMO Capital Markets – *Quantitative Analyst*

Toronto, Ontario · Apr 2018 – Aug 2018

- Built Canada's 1st blockchain bond issuance platform & **yielded a Moody's credit positive** for BMO (featured on Bloomberg, CoinDesk & Financial Post)
- Created VueJS data visualization models for institutional clients to analyze the Canadian bond market
- **Reduced GUI loading times 97%** by improving web socket infrastructure & simplifying network calls

Research Publications

MuSCLE: Multi Sweep Compression of LiDAR using Deep Entropy Models (NeurIPS 2020)

Sourav Biswas, Jerry Liu, Kelvin Wong, Shenlong Wang, Raquel Urtasun

CoinPress: Practical Private Mean and Covariance Estimation (NeurIPS 2020)

Sourav Biswas, Yihe Dong, Gautam Kamath, Jonathan Ullman

Projects

Computer Vision Weightlifting Coach – Detects unsafe posture in videos with **OpenCV pose estimation**

SumNotes – Converts lecture audio into summarized notes (**Won Hack the North 2017** Sponsor Prize)

NBA Predictive Analytics – Predictive modelling to create customized defense to counter any specific player

Education

University of Waterloo

Sep 2017 – Aug 2022

Bachelor of Computer Science (Combinatorics & Optimization Minor) – GPA: 92/100

Research Assistant (2019 – 2021) – Differential privacy & machine learning (Advisor: Gautam Kamath)

Wilfrid Laurier University

Sep 2017 – Aug 2022

Bachelor of Business Administration (Finance Major) – GPA: 92/100

Research Assistant (2019) – Fixed income analysis with R for a graduate level financial analytics course

Skills

Python, C, C++, C#, Java, HTML/CSS, JavaScript, R, Git, Linux, SQL, MongoDB, Swift, PHP, Go, Perl

Awards

Schulich Leader Scholarship – \$80 000 value from Western University (top science applicant) - declined offer

René Descartes National Scholarship – \$25 000 value from University of Waterloo (top 10 in Canada)

Governor General's Academic Medal – Ranked 1st out of 250 students in high school graduating class

ECOO Programming Provincial Finalist – Placed top 10 out of 400+ teams across Ontario (top 2%)

Galois Math Contest – Ranked top 30 out of 7000+ contestants (top 0.5% worldwide)