

# Shivam Ajmera

+1-416-520-1283 | [shivam.ajmera@uwaterloo.ca](mailto:shivam.ajmera@uwaterloo.ca) | [linkedin.com/in/shivam-ajmera](https://www.linkedin.com/in/shivam-ajmera) | [github.com/shivam-ajmera](https://github.com/shivam-ajmera) | [my-website](#)

## EDUCATION

---

### University of Waterloo

2019 – Present

*Bachelor's of Computer Science*

*Waterloo, ON*

- Major Average: **90.67%**
- Relevant Coursework: *Data Structures and Data Management, Object-Oriented Software Development, Foundations of Sequential Programs, Computer Organization and Design, Introduction to Combinatorics*

## EXPERIENCE

---

### University of Waterloo

May 2021 – Present

*Research Assistant*

*Waterloo, ON*

- Working with Professor **Samer Al-Kiswany** as part of the **Waterloo Advanced Systems Lab**.
- Currently characterizing **Kubernetes** performance when used as a platform for serverless functions such as **AWS Lambda** and **Knative**.

### Scotiabank

Jan 2021 – Apr 2021

*Data Science Intern*

*Toronto, ON*

- Developed new trading activity pipeline to process orders in **real-time** using **Kafka**, **Docker** and **Faust**.
- Optimized feature engineering for all ML models, reducing run-time by **11x** using **Spark**'s parallel processing.
- Increased scalability by **400%** using **Memcached** servers along with **Django**'s cache backend.

### Scotiabank

Sep 2020 – Dec 2020

*Software Engineer Intern*

*Toronto, ON*

- Reduced licensing costs by **>\$10,000** per year by building custom features for a non-premium **Angular** library.
- Spearheaded development of a **load testing** framework for SPAs increasing load automation coverage to **100%**, using **Selenium** and **Apache JMeter**.
- Improved **time series** modeling speed by **20x** using **Flint** for Spark by **Two Sigma**.

## PROJECTS

---

### Ardor | *Python, Django, Google Cloud Vision*

- Similar concept **patented** by **Spotify** 1.5 years later.
- Developed a web application using computer vision and sentiment analysis along with a custom collaborative filtering model using kNN, that generates entertainment recommendations based on the user's emotions.
- Finished **Top 10** amongst **600+** participants at Hack The Valley 4, University of Toronto.

### Connec-ted | *Node.js, Twilio*

- Developed a bot that interfaces SMS sent from client and provides desired directions/news progressively, to those without any internet access.
- Won the **People's Choice Award** at Winhacks, University of Windsor with **400+** participants.
- Featured on **MLH's** global livestream.

### Who's Coffin | *Spark AR Studio*

- Developed and published an Augmented Reality filter for Facebook and Instagram.
- Won the **Facebook Spark AR challenge** at TOHacks 2020 with **600+** participants.
- Featured on **Facebook's Official Spark AR page** and on **MLH's** instagram page.

## TECHNICAL SKILLS

---

**Languages:** C/C++, Python, Spark, SQL, Javascript, HTML/CSS, R, Scheme

**Frameworks:** Angular, React, Node.js, Django, Selenium, JMeter

**Tools:** Git, Docker, AWS, Kubernetes, GCP, Kafka, Knative, Airflow, Memcached, Postman

**Libraries:** pandas, NumPy, Matplotlib, scikit-learn, Flint, Faust