Shivam Ajmera

+1-416-520-1283 | shivam.ajmera@uwaterloo.ca | linkedin.com/in/shivam-ajmera | github.com/shivam-ajmera | my-website

EDUCATION

University of Waterloo Sep. 2019 – Aug. 2023
Bachelor's of Computer Science *Waterloo, ON*

- Major Average: **90.67%**

- Relevant Coursework: *Algorithms, Data Structures, Operating Systems, Object-Oriented Software Development, Computer Organization and Design, Numerical Computation, 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**.
- Characterizing **OpenWhisk** performance for chained serverless functions by building a custom **monitoring tool**.
- Identified mismatch in OpenWhisk's CLI and server side **metrics module** and contributing to **open source**.

Scotiabank Jan 2021 – Apr 2021
Data Engineering Intern *Toronto, ON*

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

Scotiabank Sep 2020 – Dec 2020
Software Engineering 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 **80%**.
- Improved **time series** modeling speed by **20x** using **Flint** for Spark by **Two Sigma**.

PROJECTS

NoteSus | *CockroachDB, Google Cloud NLP, Deep API, NodeJS, Voiceflow*

- Classifies notes using various filters generated through Google Cloud's **NLP** API.
- Supports note-taking through **dictation** and **handwriting recognition** from images.
- Compatible with **Google Home/Alexa** through **Voiceflow** to recite note summaries for active recall.

Ardor | *Python, Django, Google Cloud Vision*

- Concept developed 1.5 years before **Spotify**'s **patent**!
- 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.

TECHNICAL SKILLS

Languages: C++, Python, C, Spark, SQL, Typescript, 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