Shivam Saraf

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EDUCATION

University of Waterloo   Waterloo, ON
*3A, Bachelors in Computer Science; **Average: 90.40 %***   *September 2019 - April 2024*

Scholarships and Awards: Computer Science International Upper-Year Scholarships, President's Research Award, President's Scholarship of Distinction, Upper-Year Term Distinction, Dean's Honours List, Intramurals Soccer Finalist.

SKILLS SUMMARY

Languages:	Python, R, Javascript, C++, C, SQL, Scala, Scheme, HTML, CSS3
Frameworks:	NodeJS, Hadoop, Kafka, Django, Flask, React, Spark, Airflow, Jest
Tools:	PostgreSQL, MySQL, Selenium, Ansible, Docker, Kubernetes, Tableau, Grafana, REST API's, JIRA
Libraries:	MongoDB, Numpy, Kubeflow, Pandas, Scikit, NLTK, TensorFlow, Keras, OpenCV, Socket.io

EXPERIENCE

Index Exchange   Toronto, ON
Software Developer   *May 2021 - Present*

- Deployed a High Availability **Hashicorp Vault** cluster provisioned with Consul for secret management.
- Developed CI/CD pipelines with **Ansible** to deploy the Vault service on bare metal production clusters.
- Transported metrics and logs of the Vault service, using **Telegraf** and **Filebeat**, to **Kafka** clusters for analysing and monitoring the architecture using dashboards developed in Grafana.

University of Waterloo   Waterloo, ON
Research Assistant   *September 2020 - December 2020*

- Worked under Professor **Srinivasan Keshav** to estimate the lighting load of commercialised buildings.
- Utilized Google's **Streetview API** to extract images with over **100** different field of views and radii.
- Used **OpenCV** to estimate window dimensions and calculated the intensity of light entering the buildings.

Novantas Incorporated   New York, NYC
Data Engineer   *May 2020 - August 2020*

- Catalyzed the implementation of **Spark** pipelines ingesting **500 GB** of data daily from multiple clients.
- Integrated **Scala** and **Spark-SQL** to improve the performance of existing DML queries by over **92%**.
- Developed **MapReduce** jobs and **PMML** models to generalize data from more than **10,000** sources.

Coffee 'N Code   Waterloo, ON
Senior Project Lead   *January 2020 - April 2020*

- Developed a four month course to educate over 500 high school and university students in **Python**.
- Taught fundamental programming and OOP principles by developing 2-D games from scratch.
- Reduced budget for future events by **10%** due to a streamlined and an improved project process flow.

PROJECTS

Safe Crowds | *Tenserflow, Pandas, OpenCV, Matplotlib, Scikit-learn*   September 2020

- Utilized **YOLOv3** with OpenCV to verify if social distancing is being practiced between people.
- Used K-Means Clustering to develop real-time generated hot spots for assisting with contact tracing.

Connec-Ted | *Node JS, Twillio*   March 2020

- Developed a bot that interfaces texts and provides desired directions and news **without internet access.**
- Won the **People's Choice Award** at Winhacks, University of Windsor, with over 400 applicants.