Shivam Saraf

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EDUCATION

University of Waterloo	Waterloo, ON
*3B, Bachelors in Computer Science; **Average: 88.40 %***	*September 2019 - Present*

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, Go, SQL, Scala, Scheme, HTML, CSS3
Frameworks:	NodeJS, Hadoop, Kafka, Django, Flask, Spark, Airflow, Jest
Tools:	PostgreSQL, MongoDB, Elasticsearch, Ansible, Docker, Kubernetes, Grafana, REST API's, JIRA
Libraries:	MongoDB, Numpy, Kubeflow, Pandas, Scikit, NLTK, TensorFlow, Keras, OpenCV, Socket.io

EXPERIENCE

Uplift	Toronto, ON
Software Engineering Intern	*January 2022 - April 2022*

- Spearheading the development of API endpoints to automate the **Bankruptcy** process in the **Servicing** and **Payments** team.

Index Exchange	Toronto, ON
Software Engineering Intern	*May 2021 - Aug 2021*

- Deployed a High Availability **Hashicorp Vault** cluster, provisioned with Consul, for secret management amongst **980** applications currently deployed on Kubernetes and bare metal production clusters.
- 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** and **Kubernetes** clusters for monitoring the architecture using dashboards developed in Grafana.

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

- Worked with 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 Engineering Intern	*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.

PROJECTS

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

- 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*

- Developed a bot that interfaces texts and provides desired directions and news **without internet access.**
- Won the **People's Choice Award** at Winhacks 2020, University of Windsor, with over 400 applicants.