

TIRTH SHAH

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SKILLS

Tools:

- Kafka, Debezium, Confluent, Airflow, Argo Workflows, Spark, Deltastreamer, Hudi, GCP Dataproc, Hadoop, Datadog, Jenkins, CircleCI, Docker, K8s, Helm, Ansible, GCP BigQuery, AWS Redshift, SQL, JDBC, DynamoDB

Concepts:

- ETL, Neural Nets, Blockchain, Project Management, CI/CD, Agile/SDLC, UML Diagrams, OAuth, SSO, Design Patterns

PUBLICATIONS

(Medium)

- Getting Started with Apache Airflow
- Recognizing Presence of Private Content in Images via ML model
- Intro to Neural Nets

EDUCATION

University of Toronto (U of T)

Honors Bachelor of Science (June 2020)

- Computer Science, specialized in Software Engineering

PORTFOLIO

- tirthshah.info
- github.com/tirthsh
- medium.com/@tirthsh0

WORK EXPERIENCES (TIRTHSHAH.INFO/EXPERIENCE)

DATA ENGINEER

▪ June 2022 – Sept 2024

theScore BET / ESPN BET ▪ 125 Queens Quay E, Toronto, ON

- Designed and implemented various **API** endpoints for an in-house real-time data warehouse tool, capable of ingesting batch and stream data via **Confluent** Connectors for CDC, **Kafka** topics, processed by Apache **Spark** on a GCP **Dataproc** cluster and stored as metadata on AWS **S3** which in return queryable as AWS **Redshift** External Tables to help generate and deliver daily regulatory reports to various stakeholders
- Implemented Application monitoring via **DataDog** monitors and alerting on **Slack** and **Pagerduty** of various components of the project to ensure healthy, stable production environment
- Used **Terraform** to spin up Redshift clusters, S3 buckets, AWS EC2 instances, AWS roles/users in lower environments to assist in testing

DATA ENGINEER

▪ March 2020 – June 2022

Royal Bank of Canada (RBC) Capital Markets ▪ 200 Bay St, Toronto, ON

- Lead Airflow Developer – Configured **Apache Airflow** on **Docker**; created DAGs using **Python** to automate tasks while integrating with Hadoop, SNS notification service and Fastscore
- Configured **Amazon S3**; created utility with boto3 Python module to migrate files from Linux NAS drive to AWS S3 bucket
- Designed, built a CI / CD framework (completely dockerized) - **automated deployment** of a **PySpark** model which generates profit and loss on trading data stored on **Hadoop** cluster, via DevOps tools – **K8s**, **Helm**, and **Ansible**
- Used **Agile** Methodology: lead daily stand-ups, participated in grooming sessions, sprint planning, demo's and retrospectives

INTERNSHIPS

- Software Developer (RBC) | Full Stack Developer (Manulife) | DevOps Engineer (TD)

PROJECTS (TIRTHSHAH.INFO/PROJECTS)

- Simulated cryptographic attacks via **Docker** ; pushed boundaries in software vulnerability, network security & applied cryptography; attacks included Penetration testing, SQL Injection authentication, SSL stripping, ARP spoofing and packet sniffing using **Wireshark** and in-built network packages in **Python**
- Designed, developed, deployed restaurant rating app which incorporated user login system, backend database storage using **MongoDB**, interactive functionalities using **NodeJS** and Google Maps **API** with security embedded using browser cookies and sessions with Google **OAuth** using passport library; hosted app on **Heroku**
- Successfully lead a team of 7 developers (as scrum master) to fix 7 bugs and inserted 6 new features in **Python** within span of 12 weeks to Matplotlib, an open source plotting library