

Avyay Agarwal

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EXPERIENCE

Tesla

Data Engineering Intern

Fremont, CA
Sep - Dec 2021

- Developed a data streaming/reporting tool deployed globally across Tesla service centers using Python, React.js, Node.js, Docker and Kubernetes
- Scaled a dynamic API platform to allow 1,000+ requests/second using Python, Redis, Vertica, Docker and Kubernetes
- Built an Apache Flink management tool to easily create, manage and deploy Flink jobs

Twitter

Software Engineering Intern - ML/Data

Toronto, ON (Remote)
Jun - Sep 2021

- Hardened ML pipelines to increase stability by 40% using Spark, BigQuery, Aurora on Mesos
- Migrated ML pipelines from on-prem to GCP using Apache Beam, Dataflow and BigQuery
- Developed multiple bot management and metrics generation workflows for c-suite reporting

Squarepoint Capital

Data Engineering Intern

Montreal, QC
Jan - May 2021

- Developed multiple ETL pipelines to support quant trading strategies across global markets using Python, PostgreSQL, GCP, Nomad and Bamboo
- Built and architected a search platform for data discovery across on-prem and cloud clusters using FastAPI, Elasticsearch, Docker, Kubernetes and GKE
- Managed on-call production support solving multiple issues everyday across all active data engineering projects globally

LoyaltyOne

Data Science Intern

Toronto, ON
Sep - Dec 2019

- Developed a Key Driver Analysis model to analyze sales drivers across promotional and organic factors with 89% accuracy using PySpark, Scikit-learn and AWS
- Built a recommendation engine yielding a 52% click-through rate for customized product offers using PySpark and SparkML
- Productionized multiple ML models resulting in a 67% decrease in model development time

LoyaltyOne - Zero Gravity Labs

iOS Developer Intern

Toronto, ON
Jan - Apr 2019

- Developed an Augmented Reality iOS app using Swift, ARKit and AWS to provide a personalized and interactive retail shopping experience
- Created a recommendation model to generate product synonyms using N2V embeddings over transactional data using PySpark and MySQL

Economical Insurance

Software Developer Intern

Waterloo, ON
May - Aug 2018

- Developed a quote data ingestion platform that increases node performance by 1500% using Scala, Spark and Apache Hadoop
- Implemented a Natural Language Processing model to analyze customer satisfaction using Sentiment Analysis with 80% accuracy

EDUCATION

University of Waterloo

2017 - 2022

Hons. Bachelor of Computer Science
with a Minor in Economics

Dean's List - Fall 2020

President's Scholarship of Distinction

SKILLS

Languages

Python, Java, Scala, C/C++, Swift, Ruby,
JavaScript, Scheme, SQL, HTML/CSS

Data/ML

Apache Spark, Kafka, Hadoop, Solr, Airflow,
SparkML, Scikit-learn, TensorFlow, PyTorch,
Elasticsearch, Redis, MongoDB, MySQL,
PostgreSQL

Mobile/Web

Typescript, Node.js, React.js, Firebase,
ARKit, CoreML, Android Studio, Xcode

Other

Docker, Kubernetes, AWS, GCP, Nomad,
Bamboo, Consul, SQLAlchemy, Git

PROJECTS

Safeway - Hack The North 2019

Java, Python, Google Maps APIs

Developed an Android app using Toronto Police Open Data to help users navigate using the safest route and automatically send an SOS if unsafe activity is detected

Jukebox

Ruby on Rails, Spotify API

A Ruby on Rails application that uses the Spotify API to provide progression analysis and insights about your Spotify library based on the characteristics of songs

EchoMe - UofT Hacks 2018

Java, MongoDB, StdLib, Firebase

Developed an Android application for friends to answer questions in a Q/A style social media platform and view responses based on a barter-based algorithm to learn more about each other