

SKILLS

Languages – Java, JavaScript, C#, C++, C, Python, R, Matlab, SQL

Technologies – Apache Spark (Core, Streaming, MLlib), Hadoop, Apache Storm, Apache Kafka, Microsoft Azure, Redis, Node.js, Android, Weka Machine Learning

EXPERIENCE

Yahoo Sports

Sunnyvale, CA

Daily Fantasy Backend Team – Software Engineering Intern

Jan - Apr 2018

- Backend platform and API development in Java, integrating with MySQL, Apache Storm, Redis, and a central messaging queue service to build out features in the Yahoo Sports Daily Fantasy product.
- Developed an automated contest creation pipeline that replaced a manual process that took over an hour per day.
- Built a live projected standings feature by developing and integrating an Apache Storm processor and topology that aggregated data ingested from Redis and real time streams, improving the product's live contest experience, which increased user engagement (visits and time per visit) by about 10%.
- Created a set of APIs to implement a join similar contests user flow, resulting in an increase in entry fees received.

SAP

Waterloo, ON

Big Data Tooling Team – Software Developer Intern

May - Aug 2017

- Full stack JavaScript/Node.js development of features for a customer facing Database Explorer web app.
- Implemented dynamic filtering capabilities and an advanced data preview interface by leveraging SAP HANA's high speed in memory querying capabilities to allow users to better explore and visualize data.

Communications Research Centre

Ottawa, ON

Network Applications Group – Software Engineering Intern

Sep - Dec 2016

- Prototyping and development in Java and C# and using Apache Spark and Microsoft Azure for data engineering applications for a city wide radio spectrum usage testbed system.
- Created an automated batch data analysis pipeline integrating Apache Spark analytics scripts (written in Java) and an Azure Data Factory (using a C# custom activity), reducing execution time from about 5 hours to 30 minutes.

EDUCATION

University of Waterloo

Waterloo, ON

BASc Candidate – 3A Computer Engineering

Expected Apr 2020

- Cumulative Average: 93.42% | Overall GPA: 3.98/4 | 2B Class Rank: 1/164
- Undergraduate Research Assistantships – contributed to groups focused on distributed systems & LDPC decoding.

PROJECTS

Spark Hockey Analytics

2018

- Using Apache Spark (Core, Streaming, Machine Learning lib) and Apache Kafka to process data from NHL APIs for hockey analytics projects, including a "Redzone" recommendations script and a projected points model.

Spatial Data Visualization Tool

2017

- Created an interactive data visualization tool for dynamically filtering and aggregating spatial data on a map view based on zoom level and bounds by leveraging a Geohash spatial index within an Apache Druid data store.

User Behavior Prediction Model (Cluster Computing 2017 Vol 20 Iss 2 | DOI 10.1007/s10586-017-0749-z)

2016

- Implemented components of a novel smart home user behavior prediction model using a MapReduce and Hadoop framework to parallelize the algorithms, significantly improving speed of execution.

Smart Bed Monitoring System

2015

- Built a system to recognize and monitor bed and sleep related activity by implementing a decision tree generated using the Weka machine learning library on an experimentally gathered supervised training data set.