Shehan Suresh

Software Engineer

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EDUCATION

University of Waterloo
Software Engineering
Distinction – Dean's Honours List
Sept 2016 – April 2021
CGPA: 3.97/4 – 92%

SKILLS

Languages
C/C++, Python, Java, Go, SQL, Scala

Frameworks
Hadoop, Spark, ZooKeeper, TensorFlow, pybind11, Spring, Lucene, Selenium

Tools
Kdb+, Kafka, Redis, Presto/Hive, Unix, Ansible, Docker, Git, AWS

AWARDS

Norman Esch Entrepreneurship 2021
$10,000 prize for Capstone Project

Dean's Honours List 2021
1A, 1B, 2A, 2B, 3A, 3B, 4A, 4B

Outstanding Intern Award 2020
Citadel x2, Wish, IBM, Capital One

Hack the Valley 2018
MLH 3rd Place out of 76 teams

Electric City Hacks 2017
Top 5 + Wolfram Alpha Award

WORK EXPERIENCE

Citadel Securities • Software Engineer • Fall 2020
C/C++, pybind11, Python, Kdb+, Ansible, Docker

- Architected high performance python library supporting interprocess communication between python and Kdb+
- Optimized subscriber to achieve 10x faster subscriptions compared to existing solution for large batch sizes
- Enabled researchers across the firm to easily iterate on work with a clean and easy to use API

Citadel Securities • Software Engineer • Winter 2020
Python, C++, Kafka, WebSocket

- Added performance metrics monitoring for a distributed streaming platform enabling the reduction of latency by 25% and memory by 10%
- Designed and built real-time backend applications to support a desk executing a $100 million trading strategy

Wish • Data and Relevancy Engineer • Summer 2019
Go, Python, Redis, Bash, Presto/Hive

- Implemented centralized Redis feature store which reduced memory usage on 52 EC2 instances by 75%
- Reduced request latency by 90% by caching model weights and multithreading feature computation
- Added new features to the product ranking model to increase GMV (gross merchandise value) by 3%

IBM • Watson Data and AI Co-op • Fall 2018
Java, Bash, Apache Lucene, Jenkins

- Spearheaded the development of the Asset Management Service for the launch of Watson Studio Desktop
- Architected file system utility APIs that made up 60% of the backend for the critical service
- Developed a custom document indexer in order to perform complex search queries using Apache Lucene

Capital One • Software Engineer • Winter 2018
Python, Java, TensorFlow, Kafka, AWS, Docker

- Engineered alerts application to reduce account takeover fraud loss by $2.5 million
- Increased fraud loss coverage by 18% by implementing 20 new asynchronous aggregate features using Java Streams for the transaction fraud detection model
- Built a deep learning model using TensorFlow in order to identify new features for the fraud detection model

National Instruments • Software Developer • Spring 2017
JavaScript, Node.js, Selenium

- Developed a WebRTC library that allows users to stream data from external devices in real time