# Rafay Aleem

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## **EDUCATION**

### SIMON FRASER UNIVERSITY

MSc in Computer Science

Sep 2018

Graduating in Dec 2019 Burnaby, BC, Canada

#### **NUST**

BACHELOR OF SOFTWARE

**ENGINEERING** 

Sep 2010 - May 2014 Islamabad, Pakistan

# SKILLS

#### **BIG DATA**

RStudio • Jupyter • Anaconda PyTorch • Spark • Hadoop

#### **PROGRAMMING**

Ruby • Python • Django JavaScript • NodeJS

## **DISTRIBUTED SYSTEMS**

Kafka • RabbitMQ • Kubernetes Celery • Redis • AWS Kinesis AWS SQS • MySQL • Azkaban Hue • Mode • Presto Others:

Git • kafka-python • Sarama

## COURSEWORK

#### **GRADUATE**

Machine Learning Statistical Learning and Prediction Programming for Big Data

#### **UNDERGRADUATE**

Operating Systems
Applied Parallel Computing
Network Security
Computer Networks
Database Systems
Computer Graphics

## **ACTIVITIES**

- Guitar player (Played at the Orpheum Theatre in June 2018)
- Trekking and Hiking (Base camp of 9th highest peak)
- Horse riding

## **EXPERIENCE**

#### **SHOPIFY** | Data Engineer Intern

May 2019 - Aug 2019 | Toronto, ON, Canada

- Implemented binary parsers with custom codecs to handle data ingestion
- Implemented safeguards for downstream migration for type changes in upstream data sources
- Implemented new Datadog metrics and notifications for improved visibility
- Explored and worked on MySQL load-shedding in extractors
- Learned de-duplication techniques required to prevent duplication of same rows coming from multiple shards
- Learned tools such as Azkaban, Apache Hue, Presto, Hive and Mode

#### WIIVV WEARABLES | SENIOR PLATFORM ENGINEER

Nov 2017 - Aug 2018 | Vancouver, BC, Canada

- Wrote event-driven microservices in NodeJS using RabbitMQ
- Briefly worked with Kubernetes on AWS to improve security and load handling

#### **DUBIZZLE OLX | SOFTWARE ENGINEER**

Jan 2016 - Nov 2017 | Dubai, UAE

- Architectured and migrated payment web-service to a new payment gateway through an A/B test by leveraging HAProxy sticky sessions
- Migrated core products microservice from PostgreSQL to MySQL with just 6 minutes of downtime
- Selected as OLX Tech Ambassador for MENA region

#### **DUBIZZLE OLX** | JUNIOR SOFTWARE ENGINEER

June 2014 - Dec 2015 | Dubai, UAE

- Worked with Kafka consumers and producers using kafka-python
- Learned concepts such as SOA, load balancing, load testing, caching, message bus, canary releases and asynchronous tasks

# ARTICLES & BLOG POSTS

Apr 14, 2019 Predicting Stable Portfolios Using Machine Learning
Mar 08, 2019 Deep Learning using BigDL
Mar 13, 2017 A/B Testing Our Way to a Better Payment Gateway (OLX)
Feb 08, 2016 Live MySQL Schema Changes on Amazon RDS with Percona (OLX)

# **PROJECTS**

Sep 2017 Message bus abstraction for multiple brokers (Dubizzle). Jan 2014 Intelligent Traffic Steering at SDX. Publication submitted.

## HACKATHONS

Nov 2012 Mobilink Game Development Contest (runner-up)
Oct 2012 Punjab Youth Festival Game Development Competition (winner)

## **OPEN SOURCE**

Oct 2016 Shopify Sarama: Added user-space multi-version support for Kafka Sep 2015 Gdx-sqlite: Cross-platform extension for database handling in Libgdx