

# Hamza Azeem

## SOFTWARE ENGINEER

hamzaazeem1@gmail.com

azeem.ca

linkedin.com/in/hamzaazeem

650-426-8350

## PROFESSIONAL EXPERIENCE

### Amazon Search | Software Engineer

[Search ML Platform] - Scala • Java • Python • AWS

Aug. 2018 – Present

- Drove fine-grained model training & analysis by creating Amazon's first low-latency, hourly-attributed dataset for shopping behaviour, impacting millions of customers
- Created core marketplace datastore & automated onboarding system controlling all Search datasets, reducing marketplace onboarding resource costs by 55%
- Reduced schema-change related costs by 90% of petabyte-scale master dataset by introducing Avro, optimizing core MapReduce logic & migrating to AWS
- Lead and designed GDPR world-wide automation project for company, eliminating manual labour cost for servicing thousands of GDPR requests
- Mentored intern through project of shipping a full-stack data debugging tool used by thousands of engineers/analysts across Amazon & attracted them back for full-time

[Visual Search Platform Intern] - Python • Java • R

Aug. 2017 – Dec. 2017

- Developed Visual Search team's first machine-learned relevance ranking models for most frequent query-type in Amazon's camera search: barcodes
- Final iteration increased barcode match rate by 14% after deployment, exceeding S-Team (SVP) goal expectations

[Visual Search Platform Intern] - Python • AWS

Aug. 2016 – Dec. 2016

- Designed & launched a near real-time ingestion pipeline & its API that reduced data ingestion delays from 3 days to 2-5 seconds
- Developed backend service for near real-time addition/correction/deletion of Amazon items from the Visual Search catalog through barcode search-keys

### Ultimate Software | Software Engineer Intern

Jan. 2016 – Apr. 2016

Java • Elasticsearch • Logstash • Kibana • SQL • Android

- Owned research project for near real-time log management & analytics for entire TouchBase app's admin & Android systems
- Allowed streaming of 100k+ logs on a single cluster under 1s search times

### Oracle | Software Engineer Intern

May 2015 – Aug. 2015

Java • JavaScript • Chrome API

- Designed, owned, & shipped new Oracle product (a Chrome extension) under 3 months
- Prospect-hunting app gained 2,100+ active users since product launch
- Won best project at Marketing-Cloud hackathon + presented at OpenWorld Las Vegas

## OTHER WORK

### EyeDrone

[Capstone Project] - A.R Drone • JavaScript • Node.js • Microsoft Azure • OpenCV

Real-time traffic sign tracking on drone camera using image localization algorithm inspired by Simulated Annealing optimization

## LANGUAGES

- Java
- Python
- Scala
- JavaScript
- SQL

## TECHNOLOGIES

- Git
- AWS
  - EMR/S3/Glue
  - EC2/IAM/Athena
  - SQS/SNS + more
- Linux
- Hadoop

## EDUCATION

### University of Waterloo

B.A.Sc in Computer Engineering

2013 – 2018

### Relevant Courses

- Fuzzy Inferencing Systems & AI
- Distributed Systems
- Operating Systems
- Compilers
- Databases
- Computer Networks

## INTERESTS

- Travel
- Writing
- Beatboxing
- Fashion