

# Hamza Azeem

## SOFTWARE ENGINEER

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### PROFESSIONAL EXPERIENCE

**Amazon** | Software Engineer | Palo Alto, CA

[Ads Supply Intelligence] - Java • Scala • Python • Spark • AWS Dec. 2020 – Present

Developing end-to-end OTT user-reach forecasting models & data infrastructure

[Search ML Platform] - Scala • Java • Python • AWS Aug. 2018 – Nov. 2020

- 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 over 70%
- 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 Search's GDPR world-wide automation project, eliminating manual labour cost for servicing thousands of DSAR 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 (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
- Increased barcode match rate by 14% after deployment, exceeding org expectations

[Visual Search (Intern)] - Python • AWS Aug. 2016 – Dec. 2016

- Designed & launched near real-time ingestion pipeline reducing data ingestion delays from 3 days to 2-5 seconds
- Developed backend service for near real-time amendments of Amazon items from the Visual Search catalog through barcode search-keys

**UKG** | Software Engineer Intern | Toronto, Canada

[TouchBase Platform] - Java • ELK Stack • SQL • Android Jan. 2016 – Apr. 2016

- Created real-time analytics platform for entire time clock platform web & mobile systems
- Allowed streaming of 100k+ logs on a single cluster under 1s search times

**Oracle** | Software Engineer Intern | Toronto, Canada

[SalesTools Platform] - Java • JavaScript • Chrome API May 2015 – Aug. 2015

- Invented & shipped new public-facing Oracle sales app under 3 months
- Presented app at OpenWorld Las Vegas with 2,100+ active users since product launch

### LANGUAGES

- Java
- Python
- Scala
- SQL
- JavaScript

### TECHNOLOGIES

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

### 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
- Cooking
- Writing
- Fashion