

# ADIL Z. ANSARI

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## PROFESSIONAL EXPERIENCE

### Amazon

May 2019 - Present

#### *Team lead - Alexa Multimodal Experiences*

- Writing/maintaining low latency & high throughput platform services used by 15+ million Echo Show family of devices.
- Actively developing a v2 evolution roadmap for Ambient Home content distribution platform with product leadership.
- Worked with a new SDM to build a team of 9 Engineers to own a multi-tier stack of 12 microservices by EOY 2021
- Worked with Product & Engg. leadership to define a *beta* integration for 3p/external customers, empowering them to publish content to Home screens of Alexa Devices. [Link to the external developer preview](#)

#### *Software Engineer/Tech lead*

- Led a cross-organization team for defining **v0 interfaces** for Alexa's enterprise partners to manage content on Alexa devices in their properties. This was the first monetization opportunity for Alexa devices outside of Amazon. [Link to Alexa for Hospitality API preview](#)
- Defined & developed **v0 APIs** for Alexa content distribution platform to support [Echo Show 10 launch](#), it was adopted & used by 30+ engineering teams within Alexa by 2021 Q4 to surface content across Echo show family of devices.
- Wrote the data compliance practices for Home devices. Led a TeraByte level data migration with 2 engineers for online systems.
- Designed and implemented a parallelized federated search to source data from 100+ Alexa 1p/3p backends in real time. Led a team of 3 engineers.
- Designed and developed an async data delivery platform for 15+ million Alexa devices. Fault tolerant with eventual consistency.
- Improved the availability of platform services to 99.9 & reduced costs by 15%. Recognized in the org for operational excellence.
- Wrote AWS Step Function workflows to innovate and improve team processes & manage customer relationships (internal engineering teams) through various channels.
- Stack: Java, Python, MySQL, Distributed systems, AWS CDK

### Credit Karma

June 2016 - May 2019

#### *Platform/Infrastructure Software Engineer*

- Platform team: Primarily wrote low latency, high throughput and async microservices for auth, identity, encrypt/decrypt, session and access management.
- Migrated and scaled a locally running service to a dockerized remote cluster to serve 6 million requests/minute, maintaining a p99 SLA of 20 ms.
- Developed a realtime fault-tolerant data re-encryption service to enhance data security for 250 TB of MySQL data.
- Drove a cloud migration initiative that required coordination among multiple Platform and Infrastructure teams.
- Stack: Scala, PHP, Python, MySQL, Distributed systems, Thrift, TCP, Akka streams, Google cloud, Kafka, Docker.

### Chartboost

April 2014 - June 2016

#### *Software Engineer*

- Re-engineered and maintained critical REST based backend services using Flask.
- Wrote new video encoding pipeline which resulted in >20% decrease in bandwidth consumption and 6%-9% increase in revenue through videos.
- Developed data analysis tools for business management.
- Stack: Python, PHP, Javascript, MongoDB, Redis, Hive, Celery.

### Samsung Telecommunications America

May 2013 - Aug. 2013

#### *Software Engineering Intern*

- Contributed to the development of RESTful web services over mobile platforms
- Developed Object Oriented code to port the existing framework onto Android networking library, Volley.
- Enhanced the execution of JSON/Bitmap REST calls using Volley's in-memory and disk caching.

## SKILLS

- **Software Development:** Agile development, Software Design Patterns, Project management and Leadership
- **Programming:** Scala, Python, JAVA, php, C, MySQL, NoSQL, MATLAB, HTML,  $\text{\LaTeX}$
- **Platforms:** Finagle, Akka, Android, Hadoop MapReduce, Hive, Apache Storm, AWS, Google Cloud
- **Operating Systems:** UNIX, GNU/Linux, Win32.
- Multithreaded systems, low level socket protocols, Async programming, Reactive systems, TCP/IP, REST, Git, Celery

## EDUCATION

### University at Buffalo, The State University of New York

**GPA: 3.3/4.0**

Master of Science in Computer Science

Dec. 2013

#### *Relevant Coursework:*

Analysis of Algorithms  
Distributed Systems

Operating Systems  
Networking Concepts

Distributed and Parallel Processing  
Data Intensive Computing

## PROJECTS

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- Python Scribe Logger** ([https://pypi.python.org/pypi/scribe\\_logger](https://pypi.python.org/pypi/scribe_logger)) *2015*
- A low level interface for writing to Scribe, enabling real time streaming of aggregated log data.
  - A log handler which plays nicely with Python's logging facilities.
  - Averaged 1000 downloads per month once.
- Cloud Computing Applications** (JAVA, Hadoop, MapReduce, Apache Storm) *Coursera 2015*
- Aggregated a dataset of 6 million tweets & implemented MapReduce algorithms for word, #tag and @counts.
  - Performed similar analysis using Apache Storm and implemented page rank algorithm on the dataset.
- Amazon's Mini Dynamo** (JAVA, Android, Multithreading, Distributed Systems) *Spring 2013*
- Developed a stripped-down version of Dynamo, a backend storage with real time node joins.
  - Implemented ID space partitioning and applied ring based routing scheme for load distribution.
  - Quorum based replicated key-value storage with failure handling.
- Multithreaded Web Server** (C, Unix, Multithreading) *Fall 2012*
- Designed a queuing and scheduler module on separate thread and dispatcher module using thread pool.
  - Implemented Shortest Job First and First Come First Serve CPU scheduling policies to serve the requests.
- Peer to Peer file sharing system** (JAVA, Multithreading, Socket Programming) *Fall 2012*
- Decentralized p2p distributed file sharing program prototyped and implemented on Gnutella protocol.
  - Search query is flooded through network, and a central routing table is maintained for all peer activities.
  - Nodes communicated over TCP alongwith real time traffic monitoring.

## CERTIFICATIONS

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- Agile project management - UC Berkeley Extension *March 2018*
- Sun Microsystems certified JAVA Web Application Developer *July 2011*
- Oracle Certified Professional, JAVA SE 6 Programmer *Jan 2011*