# MUSTANSIR ZIA

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#### INTRODUCTION

"Premature optimization is the root of all evil, 97% of the time; Yet we should not pass opportunities in that critical 3%." - David Knut

"Good engineers know how to scale, great engineers know when to." - Anonymous.

I have 8 years of experience in writing and designing software systems.

I believe a true 10x engineer is the one who makes 5 of his team members achieve 2x. I believe in strong but empathetic code reviews. I love to take part in architecture discussions and shape the foundations of a product. I aim to build a product that's testable, robust, real-time, highly available and scalable at the same time. Me and my team take great pride in designing systems that cater to millions of users.

#### FULL TIME EXPERIENCE

# Technical Lead

Jul 2021 - Present

Bengaluru, Karnataka, India (Remote)

- Me and my team builds and maintains microservices and serverless functions that are responsible for critical business functions at Hubilo. This includes payment systems, lead generation and notification pipelines. We primarily use Node.js and TypeScript and there's a mix of NoSQL and SQL databases along with work queuing via Apache Kafka. The services cater to millions of requests per day.
- I was able to help my team scale our services by queuing non critical writes, maintaining a distributed cache and load balancing our database operations among different replicas and shards.
- I designed a URL shortening service which is capable of shortening thousands of URLs per second. With efficient use of hashing, distributed caches and edge functions, response time stays under 50ms for users around the globe.
- I designed a pipeline by which we could offload historical data from our main databases (MySQL, MongoDB, Aurora) into cold storage (AWS Glacier). With the help of intelligent data batching and streaming, terabytes of data could be moved without burdening any service or database.
- We built a leaderboard based on Kafka and Redis that categorises attendees based on thousands of engagements happening per second. I lead this project from scratch. I devised the most optimal algorithm we could use and the scoring happens within a few seconds for hundreds of thousands of attendees.
- I also lead development of a metrics framework using Prometheus and Grafana which helped us to measure service performance and availability.
- I lead the initiative of making our team achieve over 90% test coverage across the org. This resulted in automated tests and increased maintainability of services. Our team holds the record for the maximum amount of test coverage across Hubilo!

# Senior Software Engineer

Nov 2018 - Jul 2021

Musalleen

Srinagar, J&K, India (Remote)

- I authored & maintained web & mobile apps that were written using React.js, Kotlin & Flutter.
- I lead the development of a monolith API written in Flask & Kotlin. Our team took the initiate of deploying everything inside Docker containers. This helped us setup service orchestration and auto scaling via AWS ECS.
- I made sure all ongoing deployments were blue green which ensured the system didn't incur any downtime.
- For CI & CD, I set up a Jenkins server on AWS. This helped to reduce feedback loop in all our products since testing and deployment was automated.
- Occasionally, I also used Terraform. This helped to automate the provisioning of infrastructure for our clients.

#### Software Engineer

**KyoLAB** 

Oct 2018 - Nov 2018

London, United Kingdom (Remote)

• In this brief period, I was responsible for creating a continuous integration & delivery pipeline for Android applications using a scalable version of Jenkins.

# Full Stack Engineer

GraphicWeave

Apr 2016 - Nov 2018 Srinagar, J&K, India

- Here, I was responsible for designing & authoring distributed & highly available systems from the ground up. We wrote these in Node.js & Golang.
- I also contributed heavily & lead development of web & mobile apps using React.js, React Native and Kotlin.

#### PART TIME EXPERIENCE

#### Founding Lead Engineer - Meego

Oct 2017 - Mar 2018 — Chandigarh, India

- I was the lead developer who designed & engineered this project. During my 5 months tenure with Meego, I wrote all of its API in Node.js, almost all of its mobile apps in React Native & Kotlin.
- I also took care of all the infrastructure and deployed all the services to the cloud using Docker.

#### Software Engineering Consultant - Musalleen

Aug 2021 - Mar 2022 — Srinagar, J&K, India

• I collaborated with the engineering team to solve their pain points. This role was a mix of things where I did architecture & code review, debugged hard to solve issues & gave advice on how to strengthen the overall engineering process.

## COMMUNITY EXPERIENCE

# Open Source - GitHub

- I'm also an author and lead maintainer of 17 open source projects on GitHub.
- My open source packages have been downloaded more than 35k times on npm and pub.dev.

# **Blogging** - Personal Blog

• I also happen to be an author of tech related blogs at mustansir.dev and medium.

#### **Problem Solving** - LeetCode

• I have solved over 160 questions on LeetCode and my submissions are among the top 20% on LeetCode.

#### SKILLS & PROFICIENCY

Languages JavaScript, TypeScript, Golang, Java and sometimes in Python, Dart, Kotlin

Databases MySQL, PostgreSQL, MongoDB, Cassandra, ElasticSearch, and Neo4j

Backend Redis, Memcached, Kafka, RESTful, GraphQL, WebSockets, gRPC and Spark

Platform AWS, Linux, Docker, Terraform, Vercel, CDN Client side React.js, Next.js, Vue.js, React Native, Flutter

Testing TDD, Jest, Cypress, Testing Library
Automation Jenkins, CircleCI, GitHub Actions

**Instrumentation** Prometheus, Grafana, ELK

#### **EDUCATION**

Bachelors of Technology, University of Kashmir

Oct 2011 - Jun 2016

Major: Electronics & Communication CGPA: 7.9

## **CERTIFICATIONS**

Oracle Certified Java Professional

Jan 2016