


Umar Hussain

SOFTWARE ENGINEER

Dresden, Germany

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Work Experience

AI4BD Deutschland GmbH

Dresden, Germany

JUNIOR SOFTWARE ENGINEER (WORK STUDENT)

Mar. 2020 - Present

- Developed back-end applications with Node.js, NestJS framework to provide REST APIs and WebSockets for front-end applications.
- Developed unit and integration tests for NestJS and Angular applications with Jest and Cypress. Also worked on setting up mock environments to execute test cases.
- Deployed Sentry server on-premise to monitor Web applications for errors and performance issues. Also integrated it in front-end and back-end applications to link errors with the deployed version of applications.
- Developed CI/CD pipelines to test & build monorepo codebase, create & release semantic versions on changes and publish Docker images to Harbor registry.

AI4BD Deutschland GmbH

Dresden, Germany

DEVOPS INTERN

Sep. 2020 - Feb. 2021

- Learned about the architecture and components of Kubernetes and tools to interact with the cluster like kubectl.
- Migrated Kubernetes applications to Helm Charts. Refactored the deployment files for better reuse of charts.
- Devised strategy to apply GitOps for automated installation of Helm Charts to support multiple customers in the cluster.

Teamo Inc.

Islamabad, Pakistan

SOFTWARE ENGINEER

May 2017 - Sep. 2019

- Implemented Serverless applications using Firebase and Google Cloud Functions for front-end and mobile applications.
- Developed back-end applications with Node.js, Elasticsearch & Spring for async data processing from multiple data sources.
- Built and deployed infrastructure with Docker and GCP.
- Integrated Stripe payment processing to accept payments in Web and mobile applications.
- Built & optimized mobile applications with Android and React Native for gift card platform SoHookd.
- Developed CI/CD pipelines for Android, Node.js and Spring code-bases using Bitbucket Pipelines.

Skills

DevOps	Kubernetes, Helm, Docker, Jenkins, Bitbucket Pipelines, Google Cloud Platform, Sentry
Back-end	Spring, Node.js, NestJS, Express, Elasticsearch, REST API, WebSocket
Serverless	Firebase, Google Cloud Functions, Firebase Storage, Firebase Realtime Database
Databases	MongoDB, MySQL, Redis, SQLite, Cloud Firestore
Testing	Unit Testing, E2E Testing, Test Driven Development, Jest, JUnit, Cypress
Programming	JAVA, JavaScript/TypeScript, Go
Mobile	Android, React Native, Firebase Crashlytics
Tools	Git, Bash, Gradle, Maven, Nx (Monorepo), Jira, OpenAPI
Languages	English (C1), Urdu (C2), German (A1)

Projects

Reverse Proxy	Developed round-robin load-balancing proxy in Go for servers using Zookeeper for coordination. It also handles the unavailability of the server(s) and routes traffic to available instances.
MPP	Optimized code to improve performance on multi-core machines and achieved a speedup of 71x on 56 cores for the Mandelbrot set program.
Se-HIMAS	Developed health information management system using Spring framework to automate medical records at a department in a local government hospital.

Education

Technische Universität Dresden

Dresden, Germany

M.Sc. DISTRIBUTED SYSTEMS ENGINEERING

Oct. 2019 - Present

National University of Science and Technology (NUST)

Islamabad, Pakistan

B.Sc. SOFTWARE ENGINEERING

Sep. 2013 - Jun. 2017