

Mujahid Masood

Senior Software Engineer — Backend & Applied AI

Germany (remote) mujahid.mms@gmail.com mujahidmasood.com linkedin.com/in/mujahidmasood
github.com/mujahidmasood

Backend engineer with 10+ years of full-time experience building JVM services that stay up — Kotlin and Java on AWS and Kubernetes, from enterprise microservices at Testo and evia to the IoT ingestion platform I own today at beyonnex.io. I work at the infrastructure layer: distributed services, high-availability deployments, data pipelines and CI/CD. Alongside that I design applied-AI systems in which safety and authority are enforced as mechanism in code rather than as model instructions. MSc in Distributed Software Systems, TU Darmstadt, completed alongside working-student engineering roles.

SKILLS

Languages	Kotlin, Java (8–21), Python, TypeScript, JavaScript
Backend	Quarkus, Spring Boot, Spring Cloud, GraphQL, REST, microservices, Node.js, FastAPI
Cloud & Infra	AWS (EC2, S3, DynamoDB, Kinesis, IoT Core), Kubernetes, Docker, Terraform, GCP Cloud Run
AI Engineering	LLM agent systems, Claude & Gemini APIs, Google ADK, AI guardrails, prompt-injection defense, agent autonomy design, RAG, MCP
Data & IoT	MySQL, MongoDB, DynamoDB, Kafka, Redis, Elasticsearch, MQTT, LoRaWAN
DevOps	Jenkins, GitLab CI, Maven, Gradle, JUnit, Mockito, Playwright, Datadog, CloudWatch

EXPERIENCE

- Software Engineer · beyonnex.io

Jul 2024 – present · Hamburg, Germany (remote)

 - Design and own scalable backend services in Kotlin/Quarkus for an IoT energy-metering platform, deployed on Kubernetes with high-availability AWS infrastructure.
 - Built end-to-end IoT ingestion pipelines connecting physical metering devices via AWS IoT Core, MQTT, and Mbus Gateway 6.
 - Drive architecture and technology decisions across the backend as part of a small senior team.

Stack: Kotlin, Quarkus, Kubernetes, AWS, AWS IoT Core, MQTT
- Back End Developer · Testo SE & Co. KGaA

Dec 2021 – Jun 2024 · Berlin, Germany

 - Built advanced backend systems in Java 17/21 with Spring Boot, coordinating delivery across interdisciplinary teams.
 - Spearheaded infrastructure automation with Terraform, streamlining application staging across AWS and Azure.
 - Refined database design and query performance across MySQL and DynamoDB to improve system efficiency.
 - Built CI/CD pipelines with Jenkins and GitLab CI integrated with renovate bot, cutting build times and accelerating go-live cycles.
 - Implemented monitoring with Datadog and AWS CloudWatch for high-stakes applications requiring maximum uptime.

Stack: Java 17/21, Spring Boot, Terraform, AWS, Azure, Docker, Kubernetes, Jenkins, GitLab CI, Datadog, MySQL, DynamoDB
- Back End Developer · evia

Jun 2019 – Nov 2021 · Stuttgart, Germany

 - Drove design and implementation of scalable Spring Boot microservices for enterprise clients, applying test-driven development.
 - Delivered the **Audi Consent Store**, **Credit Plus REST services**, and the **Lidl Store Support Portal**.
 - Strengthened live-environment support through Docker/Kubernetes CI/CD pipelines on Jenkins.

Stack: Java 11, Spring Boot, Docker, Kubernetes, Jenkins, AWS, MongoDB, JUnit, Mockito

- Software Engineer · 360T

May 2017 – Mar 2019 · Frankfurt, Germany

 - Delivered software components for a complex FX market trading platform, alongside the MSc at TU Darmstadt.

Stack: Java, Spring Boot, Docker, Oracle, FX markets
- Front End Developer · asuro GmbH

Aug 2016 – Dec 2016 · Frankfurt am Main, Germany

 - Developed user interfaces for web applications and implemented responsive layouts in collaboration with designers.
- System Analyst & WebSphere Portal Developer · GBM / eGovernment Authority

Apr 2015 – Oct 2015 · Bahrain

 - Developed and maintained enterprise portal applications for Bahrain's national eGovernment portal, integrating backend services with portal interfaces.
 - Analysed system requirements and documented business processes, liaising between stakeholders and development teams.

Stack: IBM WebSphere Portal
- Application Developer · American Express (client engagement via Royal Cyber)

Apr 2013 – Jul 2014

 - Improved the payment settlement experience on the Card Member Remittance System, delivering new application features for cardholders.

Stack: Java EE (EJB 3.1), JSF, IBM WebSphere Portal, LDAP, Jasper Reports, SQL Server, Oracle
- Software Engineer · Royal Cyber Inc

Sep 2011 – Dec 2014 · Pakistan

 - Delivered enterprise-grade applications for diverse international clients on IBM enterprise technologies.
 - Developed solutions with IBM WebSphere Portlet Factory and Web Experience Factory; implemented business processes with WebSphere Lombardi and IBM BPM 7.5/8.0.

Stack: IBM WebSphere Portlet Factory, Web Experience Factory, WebSphere Lombardi, IBM BPM 7.5/8.0

SELECTED PROJECTS

BouncerAI — intent firewall for AI agent fleets. Sits between every agent in a fleet and its tools; runs a deterministic policy engine plus an LLM intent judge per call, with taint tracking of untrusted inputs and a fail-closed design against prompt-injection and hijacked-intent attacks. Python, Google ADK, Gemini.

Keepsake — ten-agent voice companion for dementia care. Voice-first memory companion plus family portal; every safety-critical decision is made by code, not a prompt (medication questions never reach a model; agent-rewritten prompts pass coded checks before going live). Deployed on Google Cloud Run. Demo: vimeo.com/1222237493

Meshyay — commerce platform run by bounded AI agents. One Flutter codebase across web, Android and iOS (storefront, supplier portal, admin console) on a FastAPI backend; the back office is run by AI agents whose permitted autonomy is an explicit register in code, and a companion agent settles supplier payouts in USDC via Circle Agent Wallet within a human-set policy cap. Flutter, FastAPI, Cloud Run, Circle Agent Wallet · meshyay.com

Also shipped: three consumer products live on the Play Store and App Store — Tijarat360 (B2B agricultural marketplace with Polygon smart-contract escrow), Builder Breakers (Unity) and Kabutar Ud (Flutter, real-time multiplayer). MSc thesis: automated exam grading with ML and computer vision. tijarat360.com · github.com/mujahidmasood/automated-exam-grader

EDUCATION

MSc Computer Science , Distributed Software Systems Technische Universität Darmstadt	2015 – 2019
BSc Computer Science (honors) FAST-NUCES, Islamabad	2007 – 2011

CERTIFICATIONS

Introducing Generative AI with AWS — Udacity	2025
DevOps on AWS Specialization — Coursera/AWS	2023
AI Programming with Python — Udacity	2017
Data Structures and Algorithms — Udacity	2017
IBM BPM Certified Developer — IBM	2014

Work authorization: Germany / EU.