Mayank Raj

BACKEND AI ENGINEER · BUILDER

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GitHub • LinkedIn • Codeforces • LeetCode • CodeChef

8.22
IIT Jodhpur
B.Tech CSE

PROFILE

Senior Backend & AI Engineer with 3+ years building products from 0 to 1. Core engineer behind CRED Garage and Insurance — serving **7M+ users** across products generating **₹350Cr+ in annual revenue**. Currently at Reliance Intelligence building AI agents and skills for Bharat AI. Designed high-throughput distributed systems at **~1000 RPS** and **~1M DAU** using Kafka, Redis, circuit breakers, and Saga patterns. ICPC Asia Regionalist (Rank 34), IEEE WCCI 2024 published researcher, IIT Jodhpur B.Tech CSE (CGPA: 8.22).

EXPERIENCE

Backend AI Engineer — Current
Sep 2026 – Present

Reliance Intelligence, Bengaluru

Python · AI Agents · LLMs · Orchestration · Microservices

- Building AI agents and skills for **Bharat AI** — an AI platform focused on making AI accessible to Indian users at scale
- Developed **Cricket Vertical** as a skill onboarded to the orchestrator agent, enabling users to get real-time cricket insights and updates via natural language
- Built a **Watcher Service** that monitors configurable events and proactively sends contextual reminders to users, improving engagement and AI utility

Backend Engineer
May 2023 – Aug 2026

CRED, Bengaluru

Java · Python · Spring Boot · REST APIs · AWS (SQS, S3) · Kafka · Redis · MySQL · DynamoDB · Elasticsearch · gRPC · Microservices

- Built and scaled CRED Garage and Insurance from 0 to 1, growing to **7M+ users** across products generating **₹350Cr+ in annual revenue**
- Operated services at peak load of **~1000 RPS** and **~1M DAU**, with horizontally scaled microservices and caching layers sustaining consistent latency under traffic spikes
- Engineered core Garage features: **challan details & payment**, **FASTag recharge & passbook**, **PUCC details**, **scraping platform**, and **car valuation** integrating **CARS24** and **Spinny**
- Architected cross-sellable pocket insurance platform across multiple LOBs, generating **~₹40Cr revenue**
- Built motor insurance assistance platform lifting conversion by **+13%** through guided, personalised user journeys
- Designed pluggable self-inspection platform boosting quote coverage by **+11%** with zero-effort insurer onboarding
- Scaled motor insurance for high-throughput requests using **circuit breakers**, **idempotency keys**, **retry + DLQ**, **Saga pattern**, and **event-driven architecture** on Kafka
- Implemented **distributed rate limiting** via Redis; applied JVM heap tuning, query optimisation, and object pooling to reduce latency at scale
- Shipped on-call AI agent (OpenAI + RAG) for incident support via MCP-exposed microservice diagnostics
- Automated KYC review with AI layer, cutting ops overhead by **−30%**

Software Engineer Intern
May – Jul 2022

SMS Datatech Corporation, Tokyo — **Pre-Placement Offer**

Java · Spring Boot · Python · PyTorch · REST APIs

- Integrated 10+ SaaS apps via REST APIs into a unified employee management platform, reducing provisioning overhead
- Engineered a **PyTorch**-based activity classification module to detect anomalous SaaS usage patterns
- Applied **Strategy** and **Factory** patterns to build a pluggable connector framework — zero core changes per new SaaS integration

PROJECTS

NEFD — Noise Engineered Proxyless Federated Distillation
Novel FL framework solving model heterogeneity without proxy datasets. Outperformed SOTA baselines; accepted at IEEE WCCI 2024.

UPI Aggregator
Centralised app to compare cashback offers across UPI providers. Modular plugin architecture.
Stack: Java · Spring Boot (backend), Android Studio · Java (mobile)

SKILLS

LANGUAGES
Java · Python · C++ · JS · SQL

BACKEND
Spring Boot · Django · REST APIs · gRPC

CLOUD & INFRA
AWS SQS · S3 · Redis · Kafka · Elasticsearch

DATABASES
MySQL · PostgreSQL · DynamoDB

ARCHITECTURE
Microservices · System Design · Event-Driven · Saga · Circuit Breakers

AI
PyTorch · RAG · AI Agents · MCP · LLM Integration

TOOLS
Git · Claude Code · Cursor · Postman

ACHIEVEMENTS

- ICPC Asia Regionalist — Rank 34
- IEEE WCCI 2024 — federated learning paper
- JEE Mains & Advanced — top 99.5 percentile
- 10th CGPA 10.0 · 12th 94.6%

EDUCATION

IIT Jodhpur
B.Tech Computer Science · 2019–2023

St. Michael's High School
Patna · Graduated 2019

PROFILES

GitHub — Mayank9mare
LinkedIn — Mayank Raj
Codeforces — Kmare
CodeChef — K_mare
LeetCode — Knightmaree

COURSEWORK

Data Structures & Algorithms
Pattern Recognition & ML
Deep Learning
Operating Systems
Database Systems
Probability & Statistics
Blockchain