

AMAN MAKHIJA

Software Engineer — Full-Stack & Distributed Systems

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EXPERIENCE

Programmer Analyst Trainee (Software Engineer)

Jul 2025 - May 2026

Cognizant Technology Solutions

Hyderabad, TG

- Analyze large-scale JavaScript applications to identify logic flaws, performance bottlenecks, and potential security vulnerabilities.
- Reverse engineer complex and minified client-side codebases to understand execution flow and debug asynchronous behavior.
- Perform static and dynamic analysis of third-party integrations to detect unsafe API usage and improve application reliability.
- Debug event-driven JavaScript systems and trace execution paths to resolve production issues.
- Develop internal automation scripts and tooling to streamline code analysis workflows and reduce manual investigation time.

Software Development Intern - Full Stack

Jul 2024 - Dec 2024

Wisflux Tech Labs

Jaipur, RJ

- Developed and optimized video and voice calling functionality using WebRTC to improve real-time communication performance.
- Redesigned key application modules including home, profile, and call logs pages to improve usability and interface consistency.
- Built and integrated full-stack features using React, Next.js, NestJS, Node.js, PostgreSQL, and Docker.

SKILLS

Programming Languages

Java, JavaScript, TypeScript, Python, C, C++

Frontend

HTML, CSS, ReactJS, NextJS, Redux, React Native

Backend

NodeJS, ExpressJS, NestJS, Spring Boot, Spring Cloud, REST APIs, Microservices

Databases

MySQL, PostgreSQL, MongoDB, Firebase

Cloud & DevOps

Amazon Web Services (AWS), Google Cloud Platform, Docker

Tools

Git, GitHub, Kafka, Redis, WebSockets, Socket.IO

Concepts

Data Structures and Algorithms, System Design, Distributed Systems

Soft Skills

Communication, Team Collaboration

PROJECTS

Distributed Notification System

[GitHub](#)

- Built a distributed event-driven notification system using Spring Boot, Kafka, Redis, PostgreSQL, and WebSockets for real-time delivery.
- Designed asynchronous processing pipeline using Kafka to decouple API and consumers, enabling independent scaling of services.
- Implemented Redis-based rate limiting (10 requests per 60 seconds per user) along with idempotent message handling to ensure reliable and duplicate-safe delivery.
- Ensured fault tolerance using Kafka retry mechanisms, dead letter queues, and circuit breaker patterns for failure isolation.

Cab Booking System – Microservices Architecture

[GitHub](#)

- Built a scalable ride booking platform using microservices architecture with services for ride matching, wallet management, driver management, and trip handling.
- Developed a ride matching service that broadcasts ride requests to nearby drivers, improving ride allocation efficiency.
- Implemented asynchronous event-driven communication using Apache Kafka for inter-service messaging.
- Built backend services using Spring Boot and Spring Cloud to support scalable distributed systems.

Chat Application – Real-Time Messaging

[GitHub](#)

- Developed a full-stack real-time messaging platform using the MERN stack supporting instant messaging, media sharing, and live user presence indicators.
- Implemented real-time WebSocket communication using Socket.IO to enable sub-second message delivery and real-time connection state management.
- Designed RESTful APIs with Node.js and Express for user authentication, message history retrieval, and media upload handling.

EDUCATION

Bachelor of Technology (Computer Science & Engineering)

2021 - 2025

Arya College of Engineering and Research Center - Jaipur, Rajasthan

CERTIFICATIONS

GitHub - Advanced Security

GitHub - Actions

Microsoft Azure - AI Engineer Associate

Google Cloud - Cloud Digital Leader

Coding Ninjas - Data Structures in Java