

# NITYA BARANWAL

Software Development Engineer | GenAI & RAG Systems

☎ +918858665776 ✉ nityabaranwal1@gmail.com 🔗 LinkedIn 🔗 Github 🔗 Calendly 📍 Bengaluru, India

## PROFESSIONAL SUMMARY

Backend & GenAI Engineer with 3 years of experience specializing in high-performance Java Microservices and cloud-native architectures. Expert in optimizing system memory by 98% and reducing frontend latency by 80%. Currently focused on architecting Retrieval-Augmented Generation (RAG) systems and integrating LLMs into enterprise-grade backend infrastructures to drive business automation.

## WORK EXPERIENCES

### Software Development Engineer I | Full-time

Feb 2023 - Jun 2025

*Bandhoo Solutions*

*Remote • Bengaluru*

- **Cache & Memory Optimization:** Re-architected Redis infrastructure, reducing per-user memory footprint from 48MB to 0.5MB, achieving a **98% reduction** in cloud memory costs.
- **System Performance Engineering:** Migrated complex filtering and search logic to the backend using optimized MySQL queries and Java Stream APIs, resulting in an **80% decrease** in frontend load times.
- **Algorithmic Refinement:** Transformed legacy JPQL/JPA methods into efficient HashMap-based lookups, significantly **reducing time** and **space complexity**.
- **Reliability & Quality:** Developed comprehensive JUnit test suites for legacy codebases, **reducing production debugging time** and enhancing deployment stability.

*Technologies / Skills Used : Java, MySQL, Spring Boot, Kafka, GCP, AngularJS, Data Structures, System Design*

## PROJECTS

### RAG-Based Profile Matching System | Github

Apr 2026 - Present

*GenAI Specialist*

- **Architected a Retrieval-Augmented Generation (RAG)** pipeline using **Python, LangChain, and ChromaDB** to automate semantic candidate-job matching.
- Implemented document chunking, metadata extraction, and vector embedding strategies to optimize retrieval precision.

*Technologies / Tools Used : Python, LangChain, ChromaDB*

## SKILLS

**Frameworks Libraries :** Spring Boot, Spring Security, Hibernate, FastAPI, Node.js, Angular, Express, React

**Languages :** English, Hindi

**Programming Languages :** Java, Python, TypeScript, SQL, GraphQL, JavaScript, NoSQL

**Soft Skills :** Data Structures & Algorithms, OOP, Microservices, System Design, Communication, Teamwork, Problem Solving, Critical Thinking

**Tools Platforms :** Git, GitHub, Bitbucket, Postman, Docker, Kubernetes, GCP, Redis

## EDUCATIONS

**BIET | Jhansi**

Aug 2013 - Jun 2017

*Bachelor of Technology (Electrical Engineering)*

*CGPA : 8.31*

**Masai School | Bengaluru**

May 2022 - Jan 2023

*Full Stack Web Development*

*CGPA : 9.5*

- Awarded the **Mithali Raj Scholarship** for **Exceptional Software Development Performance**.
- Developed and managed multiple backend projects, solving **1000+** data structures and algorithms challenges.