

PIYUSH SINGH

Software Engineer — Full-Stack — AI & Backend

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LinkedIn — GitHub — LeetCode

PROFESSIONAL SUMMARY

Software Engineer with 3.5+ years of hands-on technology and product-building experience across independent development, freelancing, and real business technology work. Builds software end-to-end—from understanding a problem and designing architecture to development, API integration, database design, debugging, testing, deployment, and iteration. Strong across Java, Spring Boot, React, Next.js, TypeScript, PostgreSQL, Docker, AWS, and AI integrations. Combines engineering execution with practical business thinking and a strong habit of finding root causes rather than only fixing symptoms.

ENGINEERING & TECHNICAL SKILLS

Languages: Java, JavaScript, TypeScript, Python, C++, SQL, HTML5, CSS3

Backend: Spring Boot, Spring Security, Spring Data JPA, Hibernate, REST APIs, Node.js, Express.js, Microservices

Frontend: React, Next.js, Redux, Tailwind CSS, Responsive UI

AI & Integrations: OpenAI API, Retell AI, AI Application Development, Prompt Engineering, Third-Party APIs

Databases: PostgreSQL, MySQL, Redis

Cloud & DevOps: AWS EC2, S3, Docker, Docker Compose, GitHub Actions, CI/CD, Git, Linux

Tools: IntelliJ IDEA, Postman, GitHub

PROJECT

FoLoUp AI — AI-Powered Interview Platform

Next.js · TypeScript · React · OpenAI · Retell AI · Clerk ·

Supabase

- Built an end-to-end AI interview platform combining LLM-generated interview questions, conversational voice AI, authentication, organization workflows, and persistent application data.
- Integrated OpenAI and Retell AI into the interview pipeline, connecting AI services with frontend workflows, server-side APIs, and database operations.
- Implemented organization-aware authentication using Clerk and persistent application workflows using Supabase, with full-stack server/API development in Next.js and TypeScript.
- Worked through integration challenges across AI responses, application state, APIs, authentication, and stored data rather than treating each component as an isolated feature.

Doctor Queue — Real-Time Clinic Queue Management Platform

Java · Spring Boot · PostgreSQL · React · JPA/Hibernate · REST APIs · SSE

- Designed and built a real-time clinic queue system from scratch for doctors and patients, covering token generation, queue progression, patient status, waiting time, and patients ahead.
- Implemented a transactional **WAITING** → **SERVING** → **COMPLETED** workflow to maintain queue consistency and prevent conflicting doctor operations.
- Built REST APIs, relational domain models, JWT authentication, and real-time Server-Sent Events (SSE) updates using Spring Boot, JPA/Hibernate, and PostgreSQL.
- Deployed the application on Ubuntu with PostgreSQL and Nginx, debugging production-style issues across CORS, authentication, API communication, frontend state, and server configuration.
- Focused on root-cause debugging across frontend, backend, database, and deployment layers instead of applying temporary fixes.

Singh Interior Solution — Business Technology & Production Website

React · JavaScript · Backend APIs · AWS · Production Deployment

- Built and managed a production website for a real business, translating business requirements into a working digital presence.
- Owned frontend development, backend integration, production configuration, AWS deployment, and ongoing technical improvements.
- Used digital channels and technology to improve service presentation and how potential clients could discover and communicate with the business.
- Gained practical experience connecting software decisions with actual business requirements rather than building technology only as a demonstration project.

EDUCATION

Bachelor of Technology in Computer Science and Engineering

2020 – 2024

Chandigarh University

CGPA: 8.5