

ABHAY KUMAR SINGH

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PROFESSIONAL SUMMARY

Full Stack Web Developer with hands-on experience building scalable, production-ready web applications using React.js, Next.js, Node.js, and cloud-native microservices architecture. Proficient in REST API development, real-time communication (WebRTC, Socket.io), event-driven systems (Apache Kafka, Redis), and containerized deployments (Docker, Kubernetes). Passionate about delivering high-performance, user-centric software with clean code and modern DevOps practices.

TECHNICAL SKILLS

Programming:	JavaScript (ES6+), TypeScript, Java, Python, C, SQL
Frontend:	React.js (Vite), Next.js, HTML5, CSS3, Tailwind CSS, Responsive Web Design, WebRTC
Backend:	Node.js, Express.js, REST API Design, Socket.io, Apache Kafka, Redis (Caching/Pub-Sub)
Databases:	MongoDB, PostgreSQL, MySQL, Appwrite, Neon DB, Database Design, Query Optimization
DevOps & Cloud:	Docker, Kubernetes, Helm, CI/CD Pipelines (GitHub Actions), Azure AKS, Linux/Bash
Tools:	Git, GitHub, Postman, JWT Authentication, VS Code, Prometheus, Grafana, npm/yarn
AI & ML:	OpenAI API, Google Gemini, Mistral AI, LangChain, LangGraph, Sentence Transformers, Pinecone, RAG Pipelines, VAPI
CS Fundamentals:	Data Structures & Algorithms, OOP, Operating Systems, Computer Networks, System Design

PROJECTS

HireHeaven – Full Stack AI-Powered Job Portal | Microservices Architecture

Oct 2025 – Feb 2026

Tech Stack: Next.js, Node.js, PostgreSQL (Neon DB), Apache Kafka, Redis, Docker, Kubernetes,

Gemini AI, Python/FastAPI ML, Prometheus, Grafana, Azure AKS

- Architected production-ready job portal with 7 independent microservices (auth, user, job, utils, payments, interview, ML) using Next.js frontend, Aiven Kafka event-driven messaging, and Redis caching for high-concurrency workflows.
- Built AI Resume Analyzer (Gemini 2.5 Flash) for ATS scoring and gap analysis; engineered ML recommendation engine using Sentence Transformers (all-MiniLM-L6-v2) with cosine similarity via FastAPI; implemented LLM-based Career Guide roadmaps.
- Containerized all services with Docker; orchestrated via Kubernetes + Helm on Azure AKS; integrated Prometheus + Grafana observability, Razorpay payments, VAPI Web SDK voice interviews, and Cloudinary media management.

Chattrix – Real-Time Full Stack Voice & Chat Application

May 2025 – Sep 2025

Tech Stack: React.js, Node.js, Socket.io, WebRTC (SimplePeer), Redis Pub/Sub, MongoDB, LangChain,

LangGraph, Mistral AI, Pinecone, Docker, GitHub Actions, Railway, Vercel

Live: [chat-application](#)

- Engineered real-time platform with 1:1 and group chat plus WebRTC peer-to-peer voice calls (<200ms latency); implemented Socket.io + Redis Pub/Sub adapter enabling horizontal scaling across Dockerized multi-server deployments.
- Integrated advanced RAG pipeline (LangChain/LangGraph + Mistral AI + Pinecone) with web crawling, document chunking, multi-query retrieval, and query decomposition for AI Insights Panel with intelligent conflict resolution.
- Implemented JWT auth, email verification (Appwrite), friend requests, message reactions, and read receipts; established CI/CD: GitHub Actions → Docker Hub → Railway (backend) + Vercel (frontend).

Blog Application – AI-Powered Full Stack Blog Platform

Dec 2024 – Mar 2025

Tech Stack: React.js (Vite), Tailwind CSS, Appwrite BaaS, OpenAI API, GitHub OAuth

Live: [blog-application](#)

- Built mobile-first blog platform with React.js (Vite) and Tailwind CSS for fully responsive, cross-device UI/UX with optimized Core Web Vitals; integrated OpenAI API for automated AI content generation and intelligent draft suggestions.
- Implemented GitHub OAuth authentication with Appwrite BaaS for database/storage management, ensuring secure user data handling and GDPR-compliant practices.

EDUCATION

BTech – Computer Science and Engineering | CGPA: 8.70/10

Aug 2023 – May 2027

Parul Institute of Technology, Parul University — Vadodara, Gujarat

Coursework: Data Structures & Algorithms, Database Management Systems, Operating Systems, Computer Networks, Object-Oriented Programming, Software Engineering

CERTIFICATIONS & ACHIEVEMENTS

- AWS Academy Graduate – Cloud Foundations (Aug 2025, 20 hrs) — Amazon Web Services
- NPTEL – Computer Networks and Internet Protocol, Elite + Silver (79%) — IIT
- Artificial Intelligence Fundamentals – IBM SkillsBuild (NLP, Computer Vision, Machine Learning, Deep Learning)

KEY COMPETENCIES

Full Stack Development • REST API Design • Microservices Architecture • Real-Time Web Applications • Cloud Deployment (Azure/Kubernetes) • AI/LLM Integration • ML Pipelines • Observability (Prometheus + Grafana) • CI/CD • Agile/Scrum • System Design • Performance Optimization