Sneha Dwivedi

Backend Engineer — AI & Backend Systems

Noida, India

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Professional Summary

Backend-focused Software Developer with experience building scalable APIs, production applications, and AI-powered backend systems using Python, FastAPI, Node.js, and TypeScript.

Experienced in PostgreSQL, MongoDB, vector databases, semantic search, embeddings, RAG pipelines, and Model Context Protocol (MCP) integrations.

Skilled in backend architecture, database optimization, cloud infrastructure, and developing reliable production systems.

Experience

Software Development Engineer I (SDE I) **July 2026 – Present**

Yenta *Remote*

- Developing AI-powered hospitality and venue discovery systems using Python, FastAPI, PostgreSQL, and vector databases.
- Implementing semantic search infrastructure using Qdrant and vector embeddings for venue indexing, retrieval, and discovery.
- Evaluating dense and hybrid search strategies, including BM25 and embedding models, to improve search relevance.
- Building MCP servers and tools for AI-powered venue discovery, menu search, and backend integrations.
- Designing data synchronization workflows between PostgreSQL, Qdrant, and dashboard applications.
- Working with AWS, Docker, Terraform, ECS, and RDS for cloud infrastructure and deployment.

Full Stack Developer (Backend Focus) **Oct 2025 – June 2026**

Siara Technology *Noida, India*

- Developed backend services and REST APIs using Node.js, FastAPI, TypeScript, MongoDB, and PostgreSQL.
- Built multi-role authentication and authorization systems using JWT and role-based access control (RBAC).
- Implemented business workflows, tax calculations, order management, and lifecycle management.
- Contributed to three commercial projects, including LedgerFace, a production platform with multi-role dashboards.
- Developed frontend integrations using React, Tailwind CSS, ShadCN, and Zustand.

Full Stack Developer **June 2025 – Oct 2025**

CV Dragon *Remote*

- Developed reusable React components and frontend modules for scalable application workflows.
- Developed a Hotel Management module supporting 500+ users.
- Built and integrated REST APIs, improving system efficiency by 25%.
- Improved application stability through debugging, code optimization, and reusable components.

Software Development Engineer **Aug 2024 – Apr 2025**

ZA Charity Feed Foundation *Remote*

- Developed backend APIs and application features, contributing to improved user engagement.
- Optimized database queries, improving application performance by 40%.
- Integrated Socket.IO and Firebase Cloud Messaging for real-time communication and notifications.
- Implemented Cloudflare security features, including WAF and DDoS protection.
- Performed API and application testing using Postman and Jest.

Projects

MediSuperBot – RAG-Based AI Assistant | Live | GitHub

- Developed an AI-powered assistant that enables users to query and retrieve information from medical PDF documents.
- Built backend services using FastAPI and integrated LLM-based question answering.
- Implemented document ingestion, chunking, and vector embedding workflows for retrieval-augmented generation (RAG).

LedgerFace – Multi-Role Commercial Platform | Live

- Contributed to a production-grade commercial platform with Buyer, Seller, Vendor, and Admin workflows.
- Implemented JWT authentication, role-based access control, tax calculations, order workflows, and lifecycle management.
- Developed backend functionality using MERN technologies, FastAPI, and MongoDB aggregations.

Real-Time Messaging Application | Live | GitHub

- Built a real-time messaging application using Socket.IO with JWT-based authentication.
- Implemented real-time event handling and client-side state management using Zustand.
- Optimized application performance and achieved a Lighthouse score of approximately 95.

Technical Skills

Languages: Python, JavaScript, TypeScript, SQL, HTML, CSS
Backend: FastAPI, Node.js, Express.js, REST APIs, Socket.IO, JWT, MCP
AI / Search: RAG, LLM Integration, Embeddings, Semantic Search, BM25, Hybrid Search
Databases: PostgreSQL, MongoDB, Qdrant, Redis
Frontend: React.js, Next.js, Tailwind CSS, ShadCN, Zustand
Cloud / DevOps: AWS, ECS, RDS, S3, Terraform, Docker, Cloudflare
Tools: Git, GitHub, Postman, Insomnia, VS Code, Cursor
Core Concepts: Data Structures, Algorithms, OOP, Database Design, Authentication, System Design

Education

Rajkiya Engineering College Sonbhadra **Nov 2020 – 2024**
B.Tech in Electrical Engineering (CGPA: 7.33) *Churk, Sonbhadra, India*