

Yash Nayan

Software Engineer | Backend Systems | Distributed Architecture

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EXPERIENCE

Full-Stack Software Engineer Intern

Jan 2026 – Present

Airbus India

Bengaluru, India

- Developed and optimized **10+** backend GraphQL API endpoints in Python with role-based access control, schema-level input validation, and centralized authorization mechanisms, reducing API error rate by **~20%**.
- Built reusable **React** component libraries and shared frontend templates, reducing engineering effort by **~30%** and accelerating delivery across **3+** product teams in an Agile environment.
- Streamlined deployment by migrating S3 provisioning from **AWS CDK to CLI**, cutting deployment time by **50%** and improving production release reliability.
- Modeled **DynamoDB** schemas and Pydantic domain entities, and wired **API Gateway** routing for a scalable admin management system serving **4+** internal teams.

Software Developer Intern

May 2025 – Jul 2025

MNJ Technologies

Bengaluru, India

- Provisioned and managed AWS infrastructure (EC2, S3, CloudFront) and performed cost-efficiency analysis using **AWS Cost Explorer**, identifying a **~15%** billing reduction opportunity.
- Resolved **10+** production bugs and shipped **3** feature enhancements in a live codebase, collaborating with senior engineers through structured code reviews and peer feedback cycles.

PROJECTS

Secure Vault System | PostgreSQL, MinIO, Docker, React 19, gRPC

[GitHub](#)

- Engineered a distributed microservices-based file storage platform with **gRPC** inter-service communication and an API Gateway for scalable backend orchestration across independently deployable services.
- Implemented stateless **JWT** authentication, **Bcrypt** password hashing, RBAC authorization, per-user storage quotas, and secure file sharing with configurable link expiration and access controls.
- Shipped a **React 19** frontend with inline file preview, soft-delete recycle bin, and an admin analytics dashboard supporting **100+** simulated concurrent users.

Retail Billing & Inventory System | Java, Spring Boot, MySQL, JWT, AWS S3

[GitHub](#)

- Developed RESTful backend services for billing, inventory, and invoice management using **Spring Boot** and **MySQL**, applying clean OOP design and transactional data integrity patterns.
- Implemented **JWT**-based authentication and role-based authorization to support secure, scalable access for admin and operator workflows.
- Integrated **AWS S3** for invoice artifact storage and structured the codebase following production-grade engineering practices for maintainability and future extensibility.

Operational Flight Risk Prediction | Python, FastAPI, PostgreSQL, Docker, SBERT

[GitHub](#)

- Built a production-ready **FastAPI** + PostgreSQL pipeline processing **38,000+** aviation incident reports with sub-second response times and scalable data ingestion.
- Engineered an automated validation framework backed by an **86-test** Pytest suite, eliminating temporal data leakage and improving classification reliability across runs.

EDUCATION

Vellore Institute of Technology

Vellore, India

B.Tech in Computer Science (Data Science) – CGPA: 9.17/10

Sep 2022 – May 2026

Relevant Coursework: Data Structures & Algorithms, Operating Systems, Database Systems, Computer Networks, Object-Oriented Programming, Machine Learning

TECHNICAL SKILLS

Languages: Java, C++, Python, JavaScript, SQL

Backend & APIs: Spring Boot, FastAPI, Node.js, GraphQL, REST APIs

Databases: PostgreSQL, MySQL

Cloud & DevOps: AWS (EC2, S3, CloudFront, API Gateway), Docker, Jenkins, CI/CD, Git

Software Engineering: Microservices, Distributed Systems, JWT, Unit Testing, Design Patterns

Frontend: React

AI / ML: Scikit-learn, SBERT, RAG Pipelines, LLMs, Pandas, NumPy

CERTIFICATIONS & ACHIEVEMENTS

- Patent Filed:** *Context-Aware Adaptive Learning System using RAG & LLM Orchestration* – Indian Patent Office
- Microsoft Certified:** Azure Data Fundamentals (DP-900) & Azure AI Fundamentals (AI-900)
- Stanford University:** Supervised Machine Learning – Regression & Classification (Coursera)
- Ranked 7th** out of **400+** participants at DEVSOC'24 Hackathon – VIT CodeChef Chapter
- Solved **600+** algorithmic problems on LeetCode across arrays, graphs, trees, and dynamic programming