

Nivi Jha

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Education

Jaypee University of Information Technology

Bachelor of Technology – Computer Science & Engineering (CGPA: 8.5 / 10)

2023 – 2027

Relevant Coursework: Data Structures & Algorithm, OOPS, Operating Systems, DBMS, Computer Networks

Experience

Summer Intern | IIT Delhi, India

June 2025 – July 2025

- Profiled system health by writing cron-scheduled Bash scripts (AWK/Grep) that collected CPU, memory, disk, and network telemetry every 60 seconds with threshold-based alerts and automated log compression.
- Built a Python security agent that forwarded structured JSON audit logs for 100+ daily SSH login events in under 2 sec latency.
- Explored network automation through Cisco DevNet sandbox labs, consuming REST APIs and containerizing environments with Docker.

Projects

MedTracker | Intelligent Healthcare Record Management System

Repo | Live

Tech: Next.js, React.js, Node.js/Express, MongoDB, JWT + OAuth 2.0, Gemini API, LLaMA, Cloudinary, Multer, Redis

- Engineered an Express + MongoDB REST API (36 endpoints, 7 models) using dual JWT/Google OAuth authentication; connected a GitHub Actions CI/CD pipeline to gate releases on passing tests.
- Developed a cache-aside pipeline (Redis hot cache, MongoDB source of truth, 30-day TTL) so AI report analysis runs exactly once per record, with automatic LLaMA→Gemini fallback and fail-open behavior.
- Wrote 21 automated tests (Vitest, Supertest, in-memory MongoDB) with a hermetic-secret CI/CD workflow that passes on Windows locally and in Linux CI.

CardioVision | Coronary Artery Stenosis Detection using Deep Learning

Repo | Live

Tech: React.js, Python, FastAPI, YOLOv8, PyTorch, OpenCV, NumPy, Gemini AI

- Built and deployed a deep learning app (React, FastAPI, Python, YOLOv8) that detects and segments coronary stenosis from angiography.
- Benchmarked 3 model variants exposed as a 5-endpoint REST API with detection, segmentation, and heatmap overlays.
- Productionized a 5-severity-level geometric stenosis classifier with pytest and a Gemini AI chatbot, hosted across Vercel and Render.

Chat Constellation | Graph-Based Conversational Interaction Visualization

Repo | Live

Tech: React.js, Node.js/Express, MongoDB, NVIDIA LLM API, React Flow, JWT + Google OAuth 2.0, Docker

- Designed a React/Express application exposing 10 REST API endpoints with MongoDB data modeling and 3 interactive UI modes (chat, constellation graph, galaxy).
- Implemented JWT authentication (7-day expiry) with bcrypt and Google OAuth 2.0.
- Containerized 3 services (MongoDB, Express, Nginx) via Docker Compose and integrated the NVIDIA LLM API for bilingual English/Hindi responses.

Technical Skills

Languages: Java, Python, JavaScript

Frontend: React.js, Next.js

Backend: Node.js, Express.js, FastAPI, REST API Design

Databases: MongoDB, MySQL, DynamoDB, Redis

Systems & Tools: Docker, Linux, Git, GitHub

ML & AI: PyTorch, YOLOv8, OpenCV, NumPy

Cloud & Deployment: AWS Lambda, AWS Comprehend, Vercel, Render

Achievements

- AWS Academy Graduate – Cloud Foundations (2025) — cloud computing and AWS fundamentals
- Co-authored research on deep learning & computer vision for coronary stenosis detection
- Web Dev Team Lead, JYC — Led 5 developers and mentored 3 juniors on React.js, Git, and version control workflows
- Hacktoberfest contributor — open source collaboration via Git and GitHub pull requests