GANGADHAR SINGH.

Cloud, DevOps and Software Engineering · Gurugram, India

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SUMMARY

Final-year B.Tech (Cloud Computing) student who builds, deploys and monitors production-style systems; **eleven projects are live** at gangadharsingh.me. Microsoft Certified DevOps Engineer Expert and Azure Developer Associate; Oracle Cloud DevOps Professional.

EDUCATION

GLA University, Mathura — B.Tech, Computer Science & Engineering (Cloud Computing), CPI 8.25 / 10 — 2023 – 2027

Seth M.R. Jaipuria School, Varanasi — Class XII, 89% (2022) · Class X, 92% (2020) — 2019 – 2022

SKILLS

Cloud and infrastructure	AWS, Microsoft Azure, Google Cloud, Oracle Cloud, Docker, Kubernetes, Terraform, Linux, Bash
CI/CD and observability	GitHub Actions, Jenkins, SonarQube, Trivy, Prometheus, Alertmanager, Grafana, Playwright, pytest
Languages	Java, Python, JavaScript, TypeScript, SQL, C++ · data structures and algorithms, OOP
Backend and data	FastAPI, Node.js and Express, Spring Boot, REST APIs, JWT, PostgreSQL, MongoDB, SQLite, Redis, Prisma
Frontend and AI	React, Next.js · PyTorch, Hugging Face Transformers, LoRA (PEFT), LLM evaluation, Azure AI Services

PROJECTS

VigilOps — Secure Cloud Operations Platform (B.Tech major project) — Live · GitHub · 2026

FastAPI, React, PostgreSQL, Prometheus, Alertmanager, Caddy, Docker Compose, GitHub Actions, Playwright

- Built a monitoring and incident platform as an **8-container Docker Compose stack**: Prometheus and Alertmanager alerts become tracked incidents with a five-state lifecycle and one active incident per alert fingerprint.
- Implemented a YAML configuration scanner (**5 security rules**) and approval-gated remediation: a fix is requested, approved by an administrator, applied by a restricted worker and **verified with 3 checks**.
- Made the audit trail **append-only** (a PostgreSQL trigger rejects UPDATE and DELETE), enforced roles in the backend, and deployed on Render and Vercel.

DealFlow360 — Quote-to-Cash Sales Operations Platform (Odoo Hackathon) — Live · GitHub · 2026

Node.js, Express, SQLite, React, JWT, PDFKit, Docker

- Architected a **28-table data layer and 60+ REST endpoints** with dual-token JWT authentication separating internal users from portal customers; verified by **17 unit tests and a 41-step end-to-end run**.
- Engineered a rule-based discount-risk engine (score 0 to 100) that routes quotations to Sales Manager and Finance automatically, plus subscription billing with proration, multi-warehouse fulfilment and server-rendered PDF invoices.

Production-Grade DevSecOps Pipeline — GitHub · 2025

Jenkins, GitHub Actions, Docker, Kubernetes (Amazon EKS), Terraform, SonarQube, Trivy, Prometheus, Grafana

- Automated CI/CD with static-analysis (SonarQube) and vulnerability-scan (Trivy) gates; provisioned AWS infrastructure with Terraform and deployed a containerised application to Kubernetes with Prometheus and Grafana monitoring.

SLM-Agent Lab — Evaluating and Compressing Small Tool-Calling AI Agents — GitHub · 2026

Python, PyTorch, Hugging Face Transformers, PEFT / LoRA, llama.cpp, SQLite, pytest

- Built an evaluation harness (4 deterministic tools, **300 exact-answer tasks**, full step logs, one failure label per wrong answer): IBM Granite-350M scored **58.0% against 31.3%** for Qwen2.5-0.5B, and most failures were planning, not syntax.
- Measured quantisation on a CPU laptop: 8-bit kept accuracy (58.7%, 378 MB) while 4-bit fell to 20.7% with 59% malformed tool calls; ran a LoRA rank sweep; 24 unit tests.

TransitOps — Fleet Operations Platform (Odoo Hackathon) — Live · GitHub · 2026

React, Node.js, Express, PostgreSQL, Prisma, JWT

- Atomic Prisma transactions for every dispatch, four-role access control, and **37 of 37 end-to-end tests** passing.

EXPERIENCE AND LEADERSHIP

President — Cloud Club, GLA University — Aug 2024 – Present

- Organised **5+ workshops and bootcamps** on cloud, DevOps and containers for **300+ students**; mentored 50+ juniors.

AI Developer, freelance — Microsoft Learn project — Jul – Aug 2024

- Built speech-recognition and text-to-speech features with Azure AI Services, the Azure Speech SDK and REST APIs.

Data Analyst Intern — SkillCred — May – Jun 2024

- Analysed **50,000+ financial records** with Python (Pandas, NumPy) and SQL to benchmark banks; built Power BI KPI dashboards.

CERTIFICATIONS AND ACHIEVEMENTS

Microsoft Certified: DevOps Engineer Expert (AZ-400), Azure Developer Associate (AZ-204), Azure Fundamentals (AZ-900) · **Oracle Cloud (OCI 2025):** DevOps Professional, Architect Associate, Foundations Associate · **AWS:** Cloud Foundations, Serverless Computing, Educate ETC member · **Google Cloud:** GCP Fundamentals

Problem solving: 550+ problems solved on LeetCode; contest rating **1726 (top 12.4%)**; Codeforces peak 1220

Team project: Juris, a legal research assistant for Indian law; built the FastAPI backend and deployed it on Render and Vercel

Hackathons: Smart India Hackathon (SatQuery AI, an ISRO / SAC problem statement) · Odoo Hackathon (TransitOps, DealFlow360)