

Avneesh Rai

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Portfolio [↗](#) | CodeChef [↗](#) | Leetcode [↗](#) | LinkedIn [↗](#) | GitHub [↗](#)

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EDUCATION

Indian Institute Of Information Technology, Lucknow
B.Tech in Computer Science

Lucknow, India
Dec 2021 – 2025

EXPERIENCE

Backend & AI Engineer

September 2025 – Present

OrbitAIM Technologies LLP [↗](#)

Greater Noida, India

- Developed and shipped backend services for ORBIT, an AI-powered B2B GTM platform used by 20+ businesses, processing 10K+ new leads/month and supporting 1M+ records across outreach, content, and analytics.
- Designed an async workflow engine with 100+ nodes and a typed Node/Flow/Workflow SDK, compiling 20+ workflows into parallel DAG pipelines, improving retention by 30% and reducing token usage by 70% on average.

PROJECTS

Multi-Tenant SMTP Server [↗](#)

2026

FastAPI, PostgreSQL, Redis, AWS SES/SQS/SNS, Pydantic, SSE, Lua, No2Bounce, dnspython

- Engineered a multi-tenant AWS SES email platform with a 5-stage pipeline, delivering 50K emails/24h across 4 tiers with automated upgrades/downgrades, reducing bounce rates below 5% and protecting sender-domain reputation.

OptiPEB — STAAD.Pro Automation Suite [↗](#)

2026

FastAPI, Next.js, OpenSTAAD (COM), pywin32, PyNiteFEA, OpenSeesPy, ezdxf, Nuitka

- Developed a FastAPI-based STAAD.Pro automation platform with OpenSTAAD COM, automating AISC/IS code-based designs and DXF generation, cutting a 2-day workflow to 5 minutes for 30+ daily AutoCAD designers.

Deep Research — Agentic AI [↗](#)

2025

FastAPI, AWS Bedrock, LangChain, Tavily, PyTorch, SentenceTransformers, boto3

- Created an autonomous Claude-based research agent with 7 tools, supporting up to 20 iterative tool calls for web search, browsing, company and people profiling, content generation, and extensible custom skills.

News Scraper & Lead Intelligence Engine [↗](#)

2024

Python, asyncio, AWS Bedrock, pgvector, PostgreSQL, SentenceTransformers, feedparser

- Streamlined an async intelligence pipeline scraping 100+ articles from 16 sources via Tor, using LLM to extract 15 business signals covering companies, people, industries, locations, projects, categories, and events.
- Designed 2-stage LLM workflow turning news signals into qualified leads and personalized outreach campaigns.

TECHNICAL ACHIEVEMENTS

- Rated 5★ on CodeChef**; solved **600+** competitive-programming problems across platforms.
- LeetCode Rating 1735** — top **10%**; best global rank **971 / 21000+** (Biweekly Contest 89).
- Cybersecurity**: Top **15%** among 13 Lakh+ participants on [TryHackMe](#).

LEADERSHIP EXPERIENCE

Founder & Coordinator, SERAPHIM Social Awareness Society IIIT Lucknow

- Led 5+ donation drives and a plantation drive, and ran 15+ awareness sessions engaging 100+ students each.

SKILLS

- Languages**: Python, C++, C, Java, JavaScript, TypeScript, SQL, Bash
- Backend**: FastAPI, Flask, Node.js, Express.js, REST APIs, WebSockets, Server-Sent Events, asyncio, Microservices
- AI/ML**: AWS Bedrock, LangChain, LLM Tool-Calling & Agents, RAG, pgvector, SentenceTransformers, PyTorch, scikit-learn, Pandas, NumPy
- Cloud (AWS)**: Simple Email Service (SES), Simple Queue Service (SQS), Simple Notification Service (SNS), Simple Storage Service (S3), CloudWatch, Secrets Manager
- DevOps**: Docker, GitHub Actions, Jenkins, Ansible, CI/CD, Linux
- Databases**: PostgreSQL, MongoDB, MySQL, Redis, asyncpg
- Frontend**: React.js, Next.js, TailwindCSS, HTML, CSS
- Tools & Practices**: Git/GitHub, pytest, Postman, Agile, System Design