

Akash Deep

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SKILLS

Languages:

• Java • Python • SQL

Frameworks / Libraries:

• Spring Boot • React.js • Django • Flask
• Node.js • Hugging Face • LangChain
• MCP • LangGraph • LLMs

Databases:

• Neo4j • Pinecone • MySQL • MongoDB

Cloud & DevOps:

• GitHub Actions (CI/CD) • Docker
• Kubernetes

Tools:

• Git • Jupyter • Google Colab • VS Code

ACHIEVEMENTS

- Flipkart Grid 5.0 - Attained a top **2000** national ranking and was among the top **10** college participants.
- Solved over **400+** DSA Questions across Platforms .
- Global Rank **3883** out of **31946** in LeetCode BiWeekly contest **125**.

LINKS

LinkedIn:// [akashdeep](#)

Github:// [akashdeep](#)

Portfolio:// [akash-portfolio](#)

Leetcode:// [akashdeep](#)

GeeksForGeeks:// [akashdeep](#)

HackerRank:// [akashdeep](#)

EDUCATION

Lovely Professional University

B.TECH in Computer Science and Engineering

2020-2024 | Punjab, India

CGPA: 7.65/10

St.Joseph's School

Class 12(ISC)

2019-2020 | Bhagalpur, India

Percentage: 81 %

St.Joseph's School

Class 10(ICSE)

2017-2018 | Bhagalpur, India

Percentage: 81.6 %

EXPERIENCE

NATIONAL PAYMENTS CORPORATION OF INDIA (NPCI) |

ASSOCIATE AI ENGINEER

October 2025- Present | Hyderabad

- Engineered a multi-agent LLM system using **LangGraph** and **LangChain** for UPI operations: Q&A assistant for payment queries, mandate tracker for recurring payments, and grievance platform for transaction disputes, handling 10K+ monthly queries at **92%** resolution rate.
- Orchestrated **hybrid graph retrieval** framework with multi-hop **Neo4j** traversals, entity boosting, and end-to-end ingestion pipelines, improving complex UPI query resolution accuracy by **40%** with near-zero latency on **50K+** relationship nodes.
- Architected hybrid RAG system using **Neo4j + Pinecone** for **UPIHelp** Phase-2 that traces payment relationships (user → mandate → merchant → transaction), delivering **35%** more accurate answers to complex multi-entity queries compared to vector-only search.

NATIONAL PAYMENTS CORPORATION OF INDIA (NPCI) |

GRADUATE ENGINEER TRAINEE

October 2024- October 2025 | Hyderabad

- Designed **Pydantic-AI** tool-calling infrastructure connecting 15+ UPI APIs for transaction lookup, complaint filing, and mandate status checks, processing **10K+** automated API calls monthly with **45%** faster response times.
- Implemented **Whisper-based** AI transcription and summarization system for internal meetings and documentation, accelerating report generation by **70%** and reducing manual note-taking effort by **50%** across teams.
- Built **fraud detection ML models** for International I-UPI to flag cross-border anomalies in real time, achieving **95%** accuracy with **20%** fewer false positives.

PROJECTS

HIGH-PERFORMANCE PRODUCT IMPORTER | GITHUB

FastAPI + Celery + Redis + Postgres

- Built a distributed ingestion pipeline capable of processing 500,000+ product records, cutting import time by **70%** using Celery worker parallelism.
- Integrated real-time progress tracking with Redis pub/sub and webhooks, improving operational visibility and debugging efficiency by **50%**.
- Achieved fault-tolerant import runs with retry logic, validation layers, and row-level error tracking, reducing data inconsistencies by **40%**.

ELECTRICITY BILL MANAGEMENT SYSTEM | GITHUB

Java, SQL, Spring Boot

- Designed a Java-powered **Electricity Billing System**, automating processes and boosting operational efficiency by **60%**.
- Deployed real-time consumption tracking, cutting billing errors by **40%** and providing users with accurate cost insights.
- Established an **SQL** customer database, enhancing data precision by **45%** and speeding up record retrieval by **35%**.

RESEARCH PAPER | LINK

Authored a research manuscript on **AI-assisted Self-Paced Learning Systems (EduHub)**, prepared for submission to IJARESM.