

NIKHIL POLICE

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PROFESSIONAL SUMMARY

Generative AI Developer & Data Engineer with 4.5 years of experience in building **end-to-end AI applications, LLM-powered agents, and large-scale data engineering pipelines.**

Expertise in **Agentic AI, RAG systems, Knowledge Graphs, PySpark, Hadoop, Hive, LangChain, LangGraph, and Neo4j.** Strong foundation in LLMs (GPT, Claude, Llama, Mistral), prompt engineering, ETL development, and scalable big-data pipelines. Adept at architecting **AI-driven automation**, hybrid search systems, data ingestion frameworks, and real-time graph-powered search solutions.

CORE SKILLS

GenAI / LLM Development

- LLMs: GPT, Claude, Llama, Mistral, Stable Diffusion
- GenAI Frameworks: **LangChain, LangGraph, Prompt Engineering, RAG, Agentic AI**
- Vector Search, Hybrid Search, Graph RAG
- UI Integration: FastAPI, Streamlit
- Knowledge Graphs: **Neo4j (Cypher queries, KG Generation)**

Data Engineering & Big Data

- Languages: **Python, SQL, PySpark**
- Big Data: **Hadoop, Hive, Spark, HDFS**
- ETL/ELT: Data ingestion, transformations, schema design, pipeline optimization
- Workflow orchestration: Autosys
- Data Quality, Data Modeling, Deduplication, Encryption (SHA-2)

Cloud / Additional Skills

- Cloud: GCP (BigQuery, Dataproc, Dataflow, Cloud Storage)
- ML/NLP Fundamentals
- Dashboards: Looker Studio, Power BI

PROFESSIONAL EXPERIENCE

GEN AI DEVELOPER

TCS (Projects) | July 2023 – Present

Experience in GenAI: 2 Years

AI Agent for Traceability Matrix & Summarization (Agentic AI Project)

Tech Stack: LangChain, LangGraph, Llama 3.2, FastAPI

Role: GenAI Developer

Responsibilities:

- Built an autonomous **AI agent** to extract requirements & test cases from documents using LLMs.
 - Designed workflow graphs using **LangGraph (nodes, edges, conversational memory)**.
 - Generated **Requirements Traceability Matrix (RTM)** and automated summarization reports.
 - Optimized prompts to improve accuracy of requirement extraction.
 - Integrated outputs into downstream applications through FastAPI services.
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Hybrid Search System Using Neo4j for Network Log Analysis (Graph RAG)

Tech Stack: Neo4j, Prompt Engineering, LLMs

Role: AI + Graph Developer

Responsibilities:

- Built a **hybrid retrieval system** combining similarity search (embeddings) + Neo4j graph queries.
- Implemented **Graph RAG** to extract entities, relationships and build real-time Knowledge Graphs.
- Developed Cypher-based graph traversal logic to detect **network attack patterns**.

- Used LLMs to **rank and score search results**, improving relevance and decision-making.
 - Boosted anomaly detection accuracy and reduced analysis time significantly.
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Gen AI for UI/UX Generation (LLM-based Design System)

Tech Stack: Python, Streamlit, Prompt Engineering, LLMs

Responsibilities:

- Evaluated performance of multiple LLMs (Claude, GPT, Llama, Mistral) for UI/UX generation.
 - Automated **wireframes, layouts, design suggestions** through advanced prompts.
 - Identified **Claude** as the best LLM for high-quality UI/UX generation.
 - Collaborated with design teams to integrate AI-generated prototypes into applications.
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DATA ENGINEER – PYSPARK & HADOOP ECOSYSTEM

TCS | July 2021– Jul 2023

Key Responsibilities

- Built and optimized **ETL pipelines** using PySpark, Hive, SQL.
 - Worked on **banking transaction data** from ATMs, branches, online platforms.
 - Created **Hive external tables, views**, and complex HQL-based transformations.
 - Performed large-scale **data ingestion, cleaning, deduplication, bad-record handling**.
 - Applied **SHA-2 encryption** for PII and sensitive fields.
 - Designed **Enterprise Data Lake** workflows using Hadoop, Spark, Hive.
 - Automated pipelines using **Tidal / Autosys schedulers**.
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Certifications

- **Google Cloud Certified – Professional Data Engineer**
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Academic Projects

Sentiment Analysis on Tourist Reviews

- Built an NLP pipeline to classify sentiments using real-world **TripAdvisor** datasets.
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Education

Bachelor of Technology (B.Tech) – Electronics and Communication Engineering

CMR Institute of Technology | Jul 2021 | CGPA: 7.6

Intermediate – MPC

St. Anthony's Junior College | May 2017 | 91.2%

SSC – Rishi High School

May 2015 | 9.3 CGPA

Achievements & Leadership

- **Python 5-Star Gold Badge** – HackerRank
- **First Prize** – Srinivasa Ramanujan Math Forum
- Organized NSS camp at Srirangapatnam Government School