

KUSH OJHA

Thane, Maharashtra

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Professional Summary

AI & Research Engineer specialized in the intersection of algorithmic innovation and high-performance data architecture. Expert in developing novel solutions for Graph RAG, Agentic orchestration, and patent-pending security heuristics. Proven ability to translate complex technical research—such as ontology-based query correction and trajectory scoring—into production-ready systems that deliver measurable improvements in retrieval accuracy and computational efficiency.

EDUCATION

Vellore Institute of Technology, Vellore - 8.81 CGPA **2020 – 2024**
B Tech - Computer Science with Specialization in Internet of Things *Vellore, India*

NL Dalmia Hightschool **2017 – 2019**
Class 12th - Percentage - 94.25% *Maharashtra, India*

EXPERIENCE

CanvasAI **Oct 2024 – Present**
Software Engineer

Project: Redseer (Financial Intelligence & RAG)

- Architected a custom **Graph RAG system** to synthesize qualitative insights from 1,000+ analyst reports, enabling relational reasoning across parent/child companies and competitors.
- Boosted reliability from **74% to 86%** by restructuring database schemas and implementing a **materialized-view strategy** to replace high-latency SQL calculations with pre-indexed data.
- Built a custom **Agentic orchestration layer** for autonomous Commercial Due Diligence (CDD) report generation, coordinating agents to fuse quantitative and qualitative data.
- Standardized DevOps by migrating code to GitHub and automating deployments to **AWS via Pulumi**, ensuring a 100% reproducible infrastructure.

Project: Peoplebox (AI-Driven Recruitment)

- Fine-tuned Llama-based LLMs** on a hybrid dataset of real-world resumes and **custom-generated synthetic data** to extract and classify candidate job roles and industry alignments with **93% accuracy**.
- Developed a **multi-modal AI interview agent** utilizing **ElevenLabs** and **OpenAI Vision** for autonomous voice synthesis and real-time proctoring to prevent candidate cheating.
- Engineered a **Complete Resume scoring algorithm** for 5,000+ resumes, analyzing data points such as company funding, growth velocity, and pedigree to rank talent which directly facilitated the hiring of 7 roles for 5 enterprise clients
- Designed a high-scale data enrichment pipeline aggregating LinkedIn and Crunchbase data to build 360-degree candidate profiles for automated match-scoring.

BalkanID **Aug 2023 – Oct 2024**
Machine Learning Engineer

- Refactored and optimized a **patent-pending RBAC (Role-Based Access Control) algorithm**, achieving an **84% reduction in runtime** through algorithmic efficiency and codebase optimization.
- Engineered high-performance RAG retrieval systems, reducing latency from **200ms to 2ms** (100x improvement) by implementing advanced database indexing in **Qdrant vector store**.
- Developed an **Ontology-Based Query Correction algorithm** for Neo4j Cypher to resolve erroneous LLM-generated queries, achieving a verified **F1-score of 96.24%**.
- Architected a Knowledge Graph-based chatbot for complex data retrieval, ensuring high precision in multi-hop relationship extraction across enterprise identity data.

SKILLS

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|-------------|--------------|-----------|----------|
| • Gen AI | • RAG | • FastAPI | • SQL |
| • Python | • LLM Agents | • Docker | • AWS |
| • Vector DB | • Finetuning | • Neo4j | • Pulumi |