
Jihad Chaalan

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PROFESSIONAL SUMMARY

Computer Science graduate focused on AI Engineering and LLM-powered applications, with hands-on experience building production-oriented RAG systems and AI solutions using Python. Experienced in retrieval pipelines, hybrid search, embeddings, reranking, LLM integration, evaluation, and REST APIs with FastAPI. Strong foundation in software engineering, testing, and CI/CD, with a focus on building reliable AI systems and continuously developing expertise in agentic AI.

TECHNICAL SKILLS

- **AI & LLM Engineering:** LLM Applications, RAG Systems, Agentic AI, Prompt Engineering, Embeddings, Hybrid Search, BM25, Vector Search, Reranking, LLM Evaluation
- **Programming Languages:** Python, TypeScript
- **Frontend:** React.js, HTML, CSS
- **Backend & APIs:** FastAPI, REST APIs, Laravel
- **Vector & Databases:** Qdrant, ChromaDB, MySQL, Vector Databases
- **DevOps & Development Tools:** Git, GitHub Actions, CI/CD, Docker, VS Code

PROJECTS

- **Enterprise RAG System**
 - **Technologies:** Python, FastAPI, Qdrant, Sentence Transformers, BM25, Cross-Encoder, Docker, GitHub Actions
 - Implemented hybrid retrieval combining vector search and BM25, merged using Reciprocal Rank Fusion (RRF), followed by Cross-Encoder reranking to improve retrieval relevance.
 - Designed role-based and tenant-level access controls using metadata filtering to ensure users only retrieve authorized documents.
 - Integrated Google Drive document ingestion and automated indexing to synchronize external documents with the knowledge base.
 - Implemented prompt-injection defenses, structured logging, error handling, and automated testing to improve system security and reliability.
 - Built evaluation workflows using golden datasets and integrated them into GitHub Actions CI to continuously validate retrieval and answer quality.
 - **Live Demo:** [RAG](#)

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- **AI News Agent**
 - **Technologies:** Python, LangGraph, Groq (Llama 3.3), Tavily API, Notion API, Gradio
 - Built an AI-powered agent that searches for the latest AI news, summarizes relevant articles using Llama 3.3 through Groq, and stores structured summaries in a Notion database.
 - Designed a deterministic LangGraph workflow connecting external tools and LLM processing through a search → summarize → webhook pipeline.
 - Integrated Tavily Search for real-time web retrieval and Notion API for automated persistence of generated summaries with source URLs.
 - **Github Link:** [ai-news-agent](#)
 - **Resume ATS Predictor**
 - **Technologies:** Python, XGBoost, Scikit-learn, Hugging Face
 - Developed a machine learning application that predicts ATS-style resume screening outcomes using a dataset of 6,000 resumes.
 - Trained and evaluated an XGBoost classification model to identify patterns associated with resume screening decisions.
 - Deployed the trained model as an interactive application on Hugging Face Spaces.
 - **Live Demo:** [Resume Ats Predictor - a Hugging Face Space by jiha-d](#)

TECHNICAL EXPERIENCE

- **Cybersecurity Intern – Youbee Company** (*May 2025 – July 2025*)
 - Completed hands-on training in web application penetration testing and vulnerability assessment.
 - Practiced identifying OWASP Top 10 vulnerabilities, including CSRF, XSS, SQL Injection, and Broken Access Control.
 - Used security tools including Burp Suite, Gobuster, and OWASP ZAP to analyze and test vulnerable web applications.
 - Worked with real-world security scenarios and vulnerable applications while developing an understanding of secure coding practices and web application security.

OTHER WORK EXPERIENCE

- Gallery Khafeja (sales man \ June 18 – August 18)
- Al-Rida juice (Waiter \ April 20 – October 20)
- Café 77 (Waiter \ Feb 21 – June 21)
- Starbucks (Barista \ July 21 - March 24)

EDUCATION

B.Sc. in Computer Science — Al-Maaref University | 2026
