Mohamed Hassan Abd Al-Badea Ali

AI Agent & Generative AI Engineer

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Summary

AI Engineer focused on generative AI and LLM applications, working across Python, RAG, AI agents, and backend development. During an AI internship at IZAM, built and shipped real product features — an AI chatbot serving job seekers and employers on a live platform, a salary estimation tool, and a market skill-gap analyzer — owning each one from frontend to deployment. Graduation project (graded Excellent) covered LLM-based job matching, RAG, and recommendation systems end to end. Comfortable turning business requests into working AI features, and used to owning a feature from design to delivery.

TECHNICAL SKILLS

Programming

- **Python**
- **Php**

AI / Machine Learning

- **Machine Learning Deep Learning**
- **Natural Language Processing (NLP)**
- **Large Language Models (LLMs)**
- **Retrieval-Augmented Generation (RAG)**
- **AI Agents**
- **Prompt Engineering**
- **Semantic Search**
- **Embedding Models**
- **Recommendation Systems**
- **Transformers (BERT)**
- **Hugging Face Transformers**
- **TensorFlow**
- **PyTorch**
- **Scikit-learn**

Data & Visualization

- **Pandas**
- **Matplotlib**
- **Seaborn**

Deployment & MLOps

- **FastAPI**
- **Streamlit**
- **Docker**
- **GitHub**

Cloud Platforms

- **Google Cloud AI**
- **Vertex AI**

UI/UX :-

- **Uxpilot tool**

Work Experience :-

- **AI Intern — IZAM, Smart Village (Aug 2026 – Oct 2026)**

- **Built "MOSAED", an AI chatbot for the Tanqeeb platform that helps job seekers find and apply for jobs and helps employers surface relevant candidates. Designed and implemented the frontend, backend, and AI components end to end.**
- **Developed a Market Gap Analyzer for Tanqeeb that compares each candidate's skills with what the market is asking for and points out the missing ones, so users know exactly what to learn next.**
- **Delivered Salary Intelligence, a business-requested feature that estimates a user's expected salary from their job title, years of experience, and seniority level. Detects the country automatically from the visitor's IP, works without login, and uses Mistral AI for the predictions.**
- **Designed "Business Online Templates", a library of ready-to-use documents for small businesses and individuals — sales invoices, employment contracts, resumes, and more. Templates are quick to fill in, downloadable as PDFs with no account needed, compliant with each country's standards, and available in 11 languages across 20 countries.**

Trainings

- **Machine Learning Engineer Trainee - National Telecommunication Institute (NTI) (Summer Training)** ***(Jun 2025 – Jul 2025)***
  Developed foundational knowledge in Machine Learning algorithms and model development. Built and evaluated ML models for predictive and classification tasks. Implemented model deployment solutions using FastAPI and Streamlit. Gained hands-on experience in data preprocessing, training pipelines, and model evaluation.

Projects :-

-> Projects During Internship in IZAM

- **MOSAED – AI Chatbot for the Tanqeeb Job Platform (Aug 2026 – Sep 2026) AI Intern**
  - **Built an AI-powered chatbot that helps job seekers find and apply for jobs and helps employers surface relevant candidates on the Tanqeeb platform.**
  - **Designed and implemented the frontend, backend, and AI components end to end, owning the full feature lifecycle.**
  - **Developed using PHP, Laravel, Bootstrap, and AI/NLP integration.**

- **Market Gap Analyzer – Skill-Demand Analysis Tool (Sep 2026 – Sep 2026) AI Intern**

- **Developed a skill-analysis tool that reads current market demand and compares it against each candidate's profile.**

- **Flags the missing skills so users know exactly what to learn next to become more employable.**
- **Built with PHP, Laravel, and Bootstrap.**

- **Business Online Templates – Multilingual Document Template Library (Aug 2026 – Oct 2026) Designer & Full Stack Developer**
- **Designed and delivered a template library for small businesses and individuals covering sales invoices, employment contracts, resumes, and more.**
- **Each template is fillable in minutes, exports to PDF with no account required, and complies with the legal standards of its target country.**
- **Available in 11 languages across 20 countries; built with Next.js, CakePHP, and Laravel.**

- **Jobilot – AI-Powered Job Recommendation & Application Platform *(Sep 2025 – Jun 2026)* AI Engineer | Graduation Project (Grade: Excellent)**
    - **Developed an AI-powered job application assistant that leverages LLMs, Retrieval-Augmented Generation (RAG), and recommendation systems to streamline job matching, resume optimization, and application automation.**
    - **Designed and implemented AI services for intelligent job matching, context-aware resume tailoring, and automated application assistance to enhance the job search experience.**
    - **Built scalable backend AI solutions using Python, FastAPI, Django, PostgreSQL, Redis, Docker, semantic search, embeddings, and RESTful APIs.**

- **Hotel Guest Cancellation Prediction *(Jun 2025 – Jul 2025)***

Machine Learning Engineer | National Telecommunication Institute (NTI) Final Project

- **Developed a machine learning prediction system to identify hotel booking cancellations using advanced data preprocessing, feature engineering, and classification algorithms, enabling data-driven decision-making for revenue optimization.**
- **Built and evaluated predictive models with Python, Scikit-learn, Pandas, NumPy, and XGBoost, optimizing performance through hyperparameter tuning, model evaluation, and explainable analytics.**

Education

Faculty of Science , Minia University (2022 - 2026)
Graduation Year: 2026 | Graduation Project Grade: Excellent

LANGUAGES

- **Arabic – Native**
- **English – Very Good**