

Shahenda Adel Abdelrahman

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Summary

Detail-oriented Artificial Intelligence student with a strong academic record (CGPA 3.5/4.0) and hands-on experience in research, software development, and machine learning. Proven ability to contribute to complex projects, from developing peer-reviewed research on RAG systems to building practical applications using Java and Python. Seeking to apply my skills in AI, computer vision, and NLP to an innovative and challenging role.

Education

Bachelor of Science in Artificial Intelligence Science *Sep 2021 – Jun 2025*
Alamein International University (AIU), Egypt
CGPA: 3.5 / 4.0

Experience

Research Contributor – RAGyverse Project *Conference Publication*
Academic Research

- Contributed to a project-based research paper on Retrieval-Augmented Generation (RAG) with 3D Unity VR, resulting in a peer-reviewed conference publication.
- Participated in experiment design, data handling, and documentation.

Field Trainee – Arabic NLP *Sep 2024*
City for Scientific Research and Technological Applications (SRTA-City)

- Focused on the implementation and evaluation of NLP models for Arabic news detection and classification.

Java Developer Intern *Feb 2023 – May 2023*
Information Technology Institute (ITI), Alexandria, Egypt

- Co-developed a chatroom application using JavaFX, socket programming, and a MySQL database.
- Created the Graphical User Interface (GUI) for user registration and login functionalities.

Projects

Graduation Project: Servio - AI Guided Service Discovery *Aspect-Oriented Programming (AOP), RAG*

- Designed a direct service discovery system using AOP and an integrated AI model to enable efficient lookup without relying on centralized service brokers.

Classroom Emotion Detection System *YOLOv7, Computer Vision*

- Developed a computer vision model to analyze student engagement by identifying faces and classifying emotions, generating actionable insights for educators.

Reinforcement Learning Agent for Grid Gaming *OpenAI Gym, Q-Learning*

- Implemented and trained a Q-learning agent to master grid-based games by navigating complex environments to maximize cumulative rewards.

Healthcare System Design & Documentation *System Architecture*

- Led the requirements gathering phase by collecting functional requirements, designed the system architecture, and wrote detailed software documentation.

Technical Skills

Languages	Python, Java, MySQL
AI & Machine Learning	TensorFlow, YOLOv7, OpenAI Gym, RAG, GAN, NLP (Arabic), Computer Vision, Reinforcement Learning
Tools	JavaFX, Unity (3D), Git
Core Concepts	Data Structures, Algorithms, AOP, System Architecture, Software Documentation, Socket Programming, OOP

Languages

Arabic: Native **English:** Intermediate