

# AHMED GALAL ELZEKY

Microsoft Certified: Azure AI Engineer Associate — NLP Specialist — Software Developer

+201110333933 | [ahmedgalal11045@gmail.com](mailto:ahmedgalal11045@gmail.com)  
[Portfolio Website](#) | [GitHub](#) | [LinkedIn](#) | [Credly](#)

## EDUCATION

---

**ESLSCA University / Computer Science B.S.**

*Sep. 2021 - Sep. 2024, Cairo, Egypt*

**Human Academy / Japanese Language and Business Manner** *Oct. 2024 - Jan. 2025, Japan(Remote)*

## EXPERIENCE

---

**AI Engineer, Intelligent Systems I-Sys**

*Feb. 2025 - Present*

- Developed secure, on-premises AI assistant platforms for banks and telecom clients using IBM technologies (**Watsonx.ai, Watsonx Orchestrate, Watsonx Discovery**), enabling ChatGPT-like interaction while preserving data confidentiality and compliance.
- Created AI agents that automate common employee tasks including calendar integration, meeting scheduling, email handling, and auto-generating Word and Excel reports through conversational input.
- Created custom LLM-based solutions capable of handling document uploads (.docx, .pdf, etc.) and performing **RAG (Retrieval-Augmented Generation)** over internal knowledge to answer user questions with precision.
- Trained **Text-to-Speech (TTS)** and **Speech-to-Text (STT)** models tailored for **Egyptian** and **Saudi Arabic** dialects, for use in voice assistants and customer service phone systems.
- Integrated dialect-specific NLP and speech models into client applications, enhancing accessibility and usability for local end-users in voice-based interfaces.
- Collaborated with UK-based firm **EmoTech** to build conversational **virtual avatars** for public-facing services, delivering interactive Arabic voice assistants powered by dialectal LLMs.
- Led client demos, and high-impact AI workshops and technical demonstrations, including presenting enterprise-grade solutions to C-suite executives from leading firms. Conducted one-on-one strategic consultations to identify pain points and tailor AI integration road-maps for each organization.  
[Workshop Link](#)

**AI Developer Intern, Eviron Adapt**

*Aug. 2024 - Oct. 2024*

- Using **Tensorflow** and **OpenCV** to create **Siamese Networks** that was used in an **image recognition model** to distinguish between identical trash bales and bales viewed from different angles, automating a previously manual task and significantly reducing company costs in storage and payments by thousands of Egyptian pounds.
- **Designed and implemented a validation model** to assess image quality against stakeholder-defined requirements, ensuring compliance and improving precision in image verification processes.

**AI Developer Intern, ESLSCA University**

*Feb. 2024 - Apr. 2024*

- Developed a project, earning ESLSCA University **The Times Highest Higher Education Award 2024** in Technological/Digital Innovation at the **Arab Summit of Universities, Dubai**.
- Used **Langchain** Framework and **OpenAI Function Calling** to build a GPT-powered chatbot that guides prospective students, provides real-time updates, and **automates document processing** and verification.
- **Streamlined admissions** by reducing processing times, enhancing communication, and reallocating staff for personalized support, boosting efficiency.

- Integrated **Chroma Vector Database** and **RAG** to provide the chatbot for **contextual awareness**.
- Worked on **Django backend** and seamlessly connected it with the **React frontend** via **RESTful APIs**, ensuring efficient system integration.

**Software Developer Intern, IIG-HEC**

*Jun. 2023 - Dec. 2023*

- [Website Link](#)
- Website developed using **ReactJS**, showcasing the company's projects.
- Real-time blog post system using **Firebase Storage** and **Firestore**.
- Deployed the website on **Vercel** serverless hosting.

**XR Developer Intern, GMind**

*Jul. 2023 - Oct. 2023*

- Used **C#** to implementing player mechanics and complex AI behavior of NPCs and player interactions.
- Gained a clear understanding of **Object-Oriented Programming**
- Refine tasks to help to achieve the vision of the game designer.

## OUTSTANDING ACHIEVEMENTS

---

- Published a **Journal of Elsevier's Procedia Computer Science**. Journal name: **Multi-Hop Arabic LLM Reasoning in Complex QA**. Presented in **ACLing 2024**, the 6<sup>th</sup> International Conference on AI in Computational Linguistics in Dubai,UAE. [Link to Paper](#)
- **Winner at the GenAI Hackathon**, hosted by Stakpak, for presenting the AI-powered Language Learning App shown under the Projects Section. [Link to Post](#)
- Worked on project with my university that has been awarded **The Times Highest Higher Education Award 2024** in Technological or Digital Innovation category in the Arab Summit of Universities in Dubai University. [Link to Post](#)
- My Startup GPTuBE has been named one of the Top 3 finalists in the **GESAwards 2024 Africa** and will represent Egypt and North Africa in the **Global GESAwards**. [Link to Post](#)

## PROJECTS

---

- **AI Quickbooks CFO Assistant – Swipelabs**

A lightweight AI-powered virtual CFO tailored for small business owners, designed to automate financial analysis and provide real-time decision support:

- o Integrated with **QuickBooks API** for sync of financial data (invoices, A/R, expenses, cash flow).
- o Delivered **automated weekly digests** via email/Slack summarizing revenue trends, burn rate, overdue invoices, and AI insights.
- o Implemented a scoring algorithm to calculate a **Financial Health Score** using business-type-adjusted weights (e.g. Burn Multiple, Margin, Runway).
- o Enabled founders to **ask finance-related questions via email**, receiving GPT-powered replies within minutes.
- o Developed a read-only **web dashboard** showing financial KPIs, trends, and a diff-style summary of "What changed this week?"
- o Added tools for **forecast simulation** and **budget tracking**, including text-based scenario analysis and alerting for overspending.

**Technologies used:** NextJS, Python, Supabase, QuickBooks API, Postmark

- **Slack AI Assistant – Swipelabs**

Built a GPT-powered Slack app designed to assist Swipelabs team members in managing client communication and internal workflows. The assistant enabled:

- o Seamless interaction via direct messages, internal channels, and Slack Connect, with **real-time pings, sentiment cues**, and AI-suggested replies.
- o **Client package tracking and onboarding workflows**, with manual input and automatic reminders for setup completion.
- o Full integration with **Trello, ClickUp, and Asana** to track deliverables vs. obligations and ping responsible members when tasks were overdue.
- o Smart monitoring of Slack Connect for **unanswered messages, deadlines, and client tone**, prompting appropriate follow-ups.
- o CRM-style reminders for account managers, with intelligent follow-up nudges after meetings and inactivity alerts.
- o **Time tracking** via integration or Slack-based input, and automatic weekly/on-demand **performance reports** sent to managers.

**Technologies used:** Python, Flask, Slack API, Trello API, ClickUp API, Google Calendar API, PostgreSQL, basic NLP for sentiment and reply suggestions

## • Language Learning Application

A full-stack language learning platform integrating AI to personalize vocabulary building and reading comprehension. Features include:

- o **Word Bank system** powered by AI to automatically populate, categorize, and assign 5-level mastery scores based on user progress and study patterns.
- o AI-driven **chatbot assistant** for real-time word extraction, grammar support, and personalized learning recommendations.
- o Immersive **Reading Mode** with contextual word lookup and real-time comprehension tracking.
- o Dynamic **Story Library** that generates custom stories using words from the user's Word Bank, tailored to their vocabulary level.
- o **Spaced repetition flashcards**, gamified quizzes, and a daily streak system to reinforce learning and boost engagement.

**Technologies used:** Django REST Framework, Next.js, React, TypeScript, TailwindCSS, Google Gemini, SQLite

## • GPTube

Allowed interactive engagement with YouTube videos through a **GPT-powered chatbot** that understood the content of the video. Used **Microsoft Azure** to integrate the GPT model, TTS and STT tools. The tool also enabled the creation of customized experiences based on Video Content:

- o Generating Interactive **Mock Tests**.
- o Correction and Explanation of User Answers.
- o Generating **PowerPoint Presentation**.

**Technologies used:** Microsoft Azure, React.js, Django, Langchain, Chroma Vector Database, OpenAI Function Calling

*GitHub:* [github.com/Gallillio/GPTube](https://github.com/Gallillio/GPTube)

## • Real-Time Facial Emotion Classification

Leveraged transfer learning techniques as well as developing my own CNN model from scratch to build a real-time facial emotion classification system.

**Technologies used:** OpenCV, CNN, MobileNetV2, VGG, ResNet50, Data Augmentation

*GitHub:* [github.com/Gallillio/RealTime\\_Facial\\_Emotion\\_Classification](https://github.com/Gallillio/RealTime_Facial_Emotion_Classification)

## • Data Visualizer with Machine Learning Training Using UI

Data Visualizer platform integrating **Supervised Machine Learning** prediction capabilities within a user-friendly interface. Allowing user to:

- o Data **Exploration, Cleaning, Transforming, Embedding, and Augmenting.**
- o **Machine Learning Algorithms** for training such as **Regression, Classification, Ensemble Methods.**
- o Access to model **Metrics** such as: **Accuracy, Precision, Recall, F-1 score, MSE**

**Technologies used:** Python, NumPy/Pandas, scikit-learn, Matplotlib

*GitHub:* [github.com/Gallillio/Data\\_Science-Data\\_Visualizer\\_Tool](https://github.com/Gallillio/Data_Science-Data_Visualizer_Tool)

## SKILLS

---

**Programming Languages:** Python, JavaScript, TypeScript, C#, HTML, CSS

**Tools:** Microsoft Azure, Watson Cloud, Google Cloud, Git, Django, Tensorflow, Keras, scikit-learn, OpenCV, ReactJS, NextJS, TailwindCSS, PowerBI, Unity

**Soft Skills:** Agile Manifesto, Kanban Boards, Data Driven Decision Making, Data Analysis, Sales Skills

## CERTIFICATIONS

---

**Microsoft Certified: Azure AI Engineer Associate**  
[Certificate Link](#)

*Issued May. 2025*

## COURSES

---

**AI-102T00-A: Designing and Implementing a Microsoft Azure AI Solution** / *Microsoft* *Feb. 2025*

**AI-900T00-A: Microsoft Azure AI Fundamentals** / *Microsoft* *Feb. 2025*

**AZ-900T00-A: Microsoft Azure Fundamentals** / *Microsoft* *Feb. 2025*

**Practitioner Watsonx Assistant** / *IBM* *Feb. 2025*

**Watsonx Orchestrate Intermediate** / *IBM* *Feb. 2025*

**Linux Administration** / *New Horizons* *Jul. 2023*

**Security +** / *CompTIA* *Apr. 2023*

**Cloud AWS Practitioner** / *Amazon* *Oct. 2022*

**Supervised Machine Learning** / *DeepLearning.AI* *Aug. 2022*

**Network +** / *CompTIA* *Aug. 2022*

**CompTIA A+** / *CompTIA* *Aug. 2022*