

# Yousef Shindy *AI Engineer*

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🌐 Yousef Shindy    🌐 Yousef Shindy

## 👤 Profile

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AI & Data Science Master's graduate from the University of Ottawa, specializing in NLP, large language models, machine learning, and data science. Passionate about uncovering hidden patterns and insights to address challenges and enhance business operations. Eager to apply expertise to real-world problems, contribute to collaborative teams, and drive business improvement through innovative solutions.

## 🎓 Education

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**Master of Engineering in AI & Data Science** 2023 – 2024  
*University of Ottawa*

**Bachelor of Communication & Computer Engineering** 2016 – 2021  
*Mansoura University*

## 👛 Professional Experience

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**AI R&D Engineer** May 2024 – present  
*EG-CERT*

- Collected and preprocessed diverse malware datasets for model development.
- Conducted research and analysis to identify and extract relevant features from malware data.
- Engineered and selected significant features to enhance model accuracy and performance.
- Experimented with various machine learning models, optimizing for both malware obfuscation detection and clustering.
- Implemented clustering algorithms to group similar malware types, continuously refining the model based on feedback and new data.

## 📁 Projects

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**News Understanding** [🔗](#)  
*Microsoft*

- Leveraged a combination of machine learning, natural language processing, and various large language models to develop a comprehensive news understanding system capable of fake news detection, bias identification, sentiment analysis, topic prediction, and news summarization. Deployed the system using a Flutter and Flask application, providing a user-friendly interface for real-time news analysis.

**Book Recommendation Chatbot** [🔗](#)

- Developed an innovative book recommender chatbot that utilizes NLP and machine learning. By seamlessly integrating Dialogflow and Flask, the chatbot delivers personalized book suggestions derived from insightful summaries

**RAG Chatbot**

- Designed and deployed a Retrieval-Augmented Generation (RAG) system to retrieve documents and generate precise answers, leveraging Qdrant for vector embeddings and GROQ API for text generation.
- Built RESTful APIs with FastAPI to handle file uploads, text processing, and embedding workflows.
- Managed database interactions using MongoDB, optimizing performance with asynchronous operations.

## Certificates

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### **Big Data Engineer**

*Issued by IBM*

### **Artificial Intelligence Analyst**

*Issued by IBM*

### **Azure AI Fundamentals**

*Issued by Microsoft*

### **Predictive Analytics Modeler**

*Issued by IBM*

### **Azure Fundamentals**

*Issued by Microsoft*

## Skills

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### **Programming Languages**

*Python, SQL*

### **Data Visualization**

*Matplotlib, Seaborn, Plotly*

### **Familiar with**

*Linux, Git & Github, Docker, OOP*

### **Data Preprocessing and Manipulation**

*Numpy, Pandas, Math*

### **NLP**

*Regex, NLTK, Hugging Face, Transformers*

## Volunteering

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### **IEEE Mansoura Student Branch**

*Head of Public Relations Committee*

Feb 2019 – Oct 2019

### **IEEE Mansoura Student Branch**

*Public Relations Volunteer*

Feb 2018 – Feb 2019

## Languages

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### **Arabic**

*Native*

### **English**

*Fluent*