

# Marwa EmadEldeen Saleh

Lecturer

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[\[LinkedIn\]](#), [\[Google Scholar\]](#), [\[Research Gate\]](#)

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I am an lecturer at Minia University with over seven years of experience in Cryptography, Steganography, Natural Language Processing (NLP), and Healthcare-related AI applications. My expertise spans a wide range of areas, including enhancing cryptographic and steganographic techniques, text classification, summarization, translation, speech recognition, sentiment analysis, Alzheimer's detection, and glaucoma detection. I have also served as a reviewer for several international conferences and journals.

I previously worked as a Machine Learning Engineer at SMSM AI and as a Research AI Engineer across multiple research projects. My technical skill set includes strong proficiency in Object-Oriented Programming, data structures, .NET, Python, C++, C#, data analysis, machine learning, deep learning, multimodal learning, NLP, image processing, database management, and multi-task learning.

Alongside my technical expertise, I have extensive experience teaching and mentoring undergraduate and graduate students in NLP, AI, and computer science courses. I adapt quickly to new knowledge and emerging technologies, and my collaborative mindset allows me to work effectively with students, colleagues, and faculty members. I am recognized for my strong communication skills, proactive leadership in academic and research activities, and ability to foster productive and cohesive team environments.

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## Academic Experience

### Lecturer

Nov 2023–Mar Present

Faculty of Computers and Information  
Minia University, Egypt

- Design and implement lesson plans and curriculum.
- Organize and distribute learning resources.
- Monitor students during class work and exams.
- Manage student behavior as appropriate.
- Plan and develop teaching aides as instructed.

### Teaching Assistant

Mar 2017- October 2023

Faculty of Computers and Information  
Minia University, Egypt

- Coordinate instructional efforts with lead teacher.
- Design and implement lesson plans and curriculum.

- Tutor students and assist with assignments and concepts.
- Organize and distribute learning resources.
- Monitor students during class work and exams.
- Manage student behavior as appropriate.
- Plan and develop teaching aides as instructed.
- Provide assistant to teachers in terms of preparing lesson outlines.

## **Demonstrator**

September 2010 – February 2017

Faculty of Computers and Information  
Minia University, Egypt

- Taught computer programs, algorithms, and computer languages to students.
- Assisting professors in preparing materials, teaching tutorials, lab sessions, invigilating exams, grading lab assignments and reports in the following courses: (Introduction to Computers, Software Engineering, Algorithms, Compilers, Artificial Intelligence, Neural Networks, Assembly Language, and Computer Theory, Security).
- Created and assigned projects to students and developed professional skills in them.
- Utilized educational software and latest instructional design programs in teaching.
- Utilized college and public library and collected teaching materials.
- Worked with students struggling in understanding concepts of computer programming

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- Utilized state-of-the-art pretrained models.
  - Perform data cleaning and preprocessing to ensure high-quality input.
  - Evaluate and analyze model performance for accuracy and reliability.
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## Academic Qualifications

PhD's Degree in Computer Science; entitled "**Improved Text Summarization using Artificial Intelligence Techniques**" – September 2023

Faculty of Computers and Information Systems, Minia University

Master's Degree in Computer Science; entitled "**Data Security Using Cryptography and Steganography Techniques**" – February 2017

Faculty of Computers and Information Systems, Cairo University

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## Publications

**Toward sustainable wastewater treatment: Transformer ensembles and multitask learning for energy consumption and quality management.**

Engineering Applications of Artificial Intelligence

Sep 2025

**A systematic literature review of deep learning-based text summarization: Techniques, input representation, training strategies, mechanisms, datasets, evaluation, and challenges**

Expert Systems With Applications

May 2024

- An optimized hybrid deep learning model based on word embeddings and statistical features for extractive summarization** July 2023  
Journal of King Saud University-Computer and Information Sciences
- Abstractive Arabic Text Summarization Based on Deep Learning** January 2022  
Computational Intelligence and Neuroscience
- Data Security Using Cryptography and Steganography Techniques.** July 2016  
International Journal of Advanced Computer Science and Applications
- Enhancing Pixel Value Difference (PVD) Image Steganography by Using Mobile Phone Keypad (MPK) Coding** February 2015  
International Journal of Computer Science and Security (IJCSS)
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## Languages

Arabic, English

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## Education

### **Faculty of Computers and Information Systems, Minia University**

Bachelor of Computer Science – Class 2010  
Excellent with Grade of Honor

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## References

### **Prof. Dr. Abdelmgeid A. Ali**

Professor in the Computer Science Department, Faculty of Computers and Information, Minia University, Egypt.  
Email: [a.ali@minia.edu.eg](mailto:a.ali@minia.edu.eg)

### **Prof.Dr. Yaser Maher Abdalmotalib**

Associated professor in the Information Technology Department, Faculty of Computers and Information, Minia University, Egypt.  
Email: [yaser.wazery@minia.edu.eg](mailto:yaser.wazery@minia.edu.eg)

### **Dr. Sara Osama**

Assistant Professor, Faculty of Computers and Information, Minia University, Egypt.  
Email: [sarahosama792@mu.edu.eg](mailto:sarahosama792@mu.edu.eg)

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## Personal Info.

Birth date: August 01, 1989

Nationality: Egyptian

Marital Status: Married

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