

## Education

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*Arab Academy for Science, Technology & Maritime Transport, Smart Village Campus*

- Graduated June 2024
- GPA: 3.2
- Major: Software Engineering
- Minor: Computer Science

## Internships & courses

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*ITI (Artificial Intelligence)*

*Sep 2023 – Oct 2023*

Completed a comprehensive AI course covering foundational AI concepts, probability, statistics, linear algebra, and Python programming. Developed skills in data preparation, exploration, and optimization for machine learning, with practical expertise in neural networks and deep learning to solve real-world AI problems.

*ITSharks (AI Diploma)*

*Sep 2023 –Feb 2024*

Completed a comprehensive course in AI, covering programming fundamentals (Python, OOP, software engineering), data science essentials (algebra, statistics, probability, NumPy, pandas), and machine learning concepts (regression, classification, feature engineering, clustering). Gained deep learning expertise in ANN, CNN, RNN, and advanced pre-trained models like YOLO and Mask-RCNN.

*Telecom Egypt "WE" (AI)*

*Jan 2024 –Feb 2024*

Completed a comprehensive AI course, covering AI fundamentals, Python, and essential data science libraries. Gained hands-on experience in machine learning and deep learning, focusing on CNNs and custom architectures for data-specific tasks. Learned advanced techniques in object detection, segmentation, and pre-trained models like Mask-RCNN. Additionally, developed skills in labeling custom datasets and using automated tools for extracting frames from videos.

*ITSharks (Back-End Course "Laravel")*

*Aug 2024 –Nov 2024*

Completed a comprehensive back-end development course, starting with native PHP and progressing to the Laravel framework. Gaining hands-on experience in building various web applications, including e-commerce platforms, Doctors reservation system, Instagram DEMO with a focus on database management, routing, authentication, and API integration.

## Graduation Project

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***\*\*Smart Glasses for Visually Impaired (Graduation Project):\*\**** *Designed and developed smart glasses to assist visually impaired users in daily tasks. Built on a Raspberry Pi 4, the device includes a camera, headphones, and a microphone. Trained a custom YOLOv8 model on a self-collected and labeled dataset to accurately detect products in real-time, with audio feedback provided to the user. Led the end-to-end AI development, from data collection and model training to hardware integration, and contributed significantly to project documentation for clear communication of our work.*

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## Projects

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*Smart Garage System (Arduino UNO)*

*May 2024*

- Developed a mobile app-controlled smart garage automation system using Arduino Uno and Bluetooth communication. The system features:
  - Cars counting: automatically counting incoming and leaving cars using sensors in the gates and calculate the free spots.

- Garage Door Control: The system enables remote opening and closing of the garage door via the mobile app, enhancing security and convenience.

### *Animal recognition System*

*Feb 2024*

Developed software using Convolutional Neural Networks (CNNs) to classify and identify animal species from images. Collected and labeled a diverse dataset, designed and trained a CNN model, and implemented techniques for data augmentation and regularization. Evaluated the model's performance using accuracy and other metrics. Deployed the system with a user-friendly interface for real-time animal recognition.

### *Cinema booking website*

*Jan 2023*

- Developed a Website for online cinema booking using:
- HTML,CSS,JavaScript: Designed an interactive user-friendly interface for the website.
- AJAX,PHP: used for backend developing and Database integration
- Database Integration: Connected the application to a database (PhpMyAdmin) to manage movies, customers and admins.

### *Clinic booking website (Doccure)*

*Noc 2024*

- Developed a Website for online Clinic booking using:
- HTML, CSS, JavaScript: Designed an interactive user-friendly interface for the website.
- PHP (Laravel): used for backend developing and Database integration using multi authentication for doctors and patients
- Database Integration: Connected the application to a database (PhpMyAdmin) to manage movies, customers and admins.
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## **Skills**

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|-------------------|-------------|-----------------------|
| • Fast learner    | • Team Work | • Critical Thinking   |
| • Problem Solving | • Searching | • Attention to Detail |

## **Technical Skills**

Advanced in

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|----------|-----------|--------------|
| • Python | • C++     | • JavaScript |
| • Php    | • Laravel |              |

Familiar with

- |                   |                          |                    |
|-------------------|--------------------------|--------------------|
| • Java            | • R                      | • Arduino Projects |
| • Linux           | • Data Structures        | • Algorithms       |
| • Design Patterns | • Microsoft Office Suite | • React            |
| • C               | • Assembly language      | • Figma/balsamic   |

## **References**

Available upon request