Youssef Abbas

youssefabbas.2001.1911@gmail.com

(+20)1284481514

○ YoussefAbbas2001

in Youssef Abbas

Summary

Passionate engineer with a strong foundation in AI, Computer Vision, Natural Language Processing (NLP), Robotics, and Embedded Systems. Experienced in building autonomous robots, simulators, and AI-driven applications. Skilled in ROS, SLAM, and deep learning techniques for both vision and language tasks. Currently seeking roles in AI, Robotics, or Software Development.

Professional Experience

ACME Saico
Remote Work
C++ Developer
07/2024 - 03/2025

Developed a high-fidelity simulator for the Egyptian Air Forces

- Simulated both civil and military airport operations
- Utilized Unreal Engine to build an interactive front-end interface
- Implemented back-end systems using C++/Qt applications for control and logic handling

Autonomous Mobile Robot

Team Leader

Graduation Project 09/2023 - 06/2024

• Developed an indoor mobile robot (Tortabot) equipped with mecanum wheels for omnidirectional movement

- o Utilized Robot Operating System (ROS) for system integration, real-time control, and Simulation using Gazebo
- Implemented a localization and navigation system using SLAM techniques
- Led the development of the robot's mechanical design and computer vision pipeline

Bill Fraud Detection Application

Freelancing

Computer Vision Project

02/2024 - 07/2024

- Implemented an object detection model to identify and categorize various types of bill damage
- Integrated classical image processing techniques to enhance classification accuracy
- Collected and annotated a custom dataset from diverse real-world samples

M.I.A Robotics

Student Activity

Alexandria University

10/2021 - 08/2024

- Board Member 2024: Contributed to strategic planning, mentoring, and high-level decision-making
- Training Program Head 2023/2024: Designed and led technical training programs for new members
- ROV AUV Team Member 2023-2024: Participated in building multiple Remotely Operated and Autonomous Underwater Vehicles from scratch and competing in MATE ROV and ARC competitions
- ABU Robocon 2022-2024: Contributed to the design and development of six robots over three consecutive seasons, representing Egypt in all international editions of the competition
- Computer Vision Team Leader 2023: Led the development of vision-based solutions for ROV and Ground robots
- NOAA AI Competition 2023: Developed an AI model to detect and classify underwater species; awarded 1st place internationally
- Computer Vision & Hardware Member 2022: Worked on real-time perception systems and hardware integration

EDUCATION

Alexandria University

Alexandria, Egypt

B.Sc., Communication and Electronics Engineering - CGPA: 3.44

202

TECHNICAL SKILLS

- Machine Learning
- NLP
- Computer Vision
- Data Analysis

- Linux
- Embedded Systems
- Autonomous Systems
- Robotics Skills

- PCB Design
- Agile Project Management