MOSTAFA ASHRAF IBRAHIM ALI ELFEEL
MECHATRONICS, ROBOTICS, AND AUTOMATION SYSTEMS ENGINEER

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Profile
A highly motivated Mechatronics, Robotics, and Automation systems engineer with a deep passion for robotics and autonomous systems. Committed to pursuing a career in these innovative fields, dedicated to continual learning, conducting impactful research, and actively contributing to the development of groundbreaking technologies. I take pride in always pushing myself to my limits and I have often been described as dedicated, and hardworking.

Education
Bachelor's Degree in Mechatronics and Automation Engineering, Ain Shams University ICHEP   "2018 - 2023"
GPA: 3.38

El Manara Language School for boys [English Taught]   "2006 - 2018"
Grade: 94%

Extracurricular Activities
Teacher Assistant at Autotronics Research Lab (ARL), Racing Team, Ain Shams University   "Aug 2023 - Nov 2023"
- In AI racing team workshops for the 2024 season, I taught ROS2 and CoppeliaSim, providing insights into robotic simulations and integrating CoppeliaSim with ROS2 for robust system development.

Electric Vehicles member, Racing Team, Ain Shams University   "Oct 2021 - Mar 2022"
- Calculated the heat produced by the EV car and determined the required pressure to design an efficient radiator system for optimal heat dissipation.
- Utilized ANSYS for simulation to validate the calculations.

Public Relations member, IClub, IHub, Ain Shams University   "2020 - 2021"
- Skilled PR professional adept at crafting compelling narratives and executing impactful media campaigns.
- Management skills
- Presentation skills

Trainings and Internships
HMI and Scada systems training-Schneider (Link)	"Summer 2022"
Practical Applications of Mechanics and Automation-AIT (Link)	"Summer 2022"
Maintenance Engineer trainee-ADD-ME (Link)	"Summer 2021"
Bavarian Auto Group (Link)	"Summer 2021"
Access control-ZKteco (Link)	"Summer 2021"
CNC camp-RTE (Link)	"Summer 2020"
Programmable Logic Controller basic training-Schneider (Link)	"Summer 2020"

Skills
Software	C++, Embedded C, Python, Object-oriented programming, Lua, Linux Ubuntu
Design	Inventor, SolidWorks, AutoCAD, ANSYS
Control	MATLAB, Simulink, Simscape
Autonomous	ROS1&ROS2, Vision (OpenCV), Path Planning, Perception, Localization
Automation	PLC programming, LOGO programming, HMI & SCADA Design, TIA Portal, Ladder Diagram, Factory I/O
Embedded	Arduino, Tiva C(tm4c123gh6pm), FreeRTOS, Proteus
Microsoft	Word, Excel, PowerPoint
Other	Leadership, Planning, Communication, Management, Problem Solving
Linguistic skills	Arabic (Native Speaker), English (Advanced), German (A1)

Graduation Project   **Check my GitHub/LinkedIn to see all my projects**
"Swarm of Autonomous Drones for Environment mapping aka SADEM" Grade: A+ (Link) (Link)
The project aimed to create a swarm of autonomous drones capable of generating detailed 3D visualizations of indoor and outdoor areas. The system consisted of multiple drones with stereo ZED cameras and an on-ground base station for computation. The drones used inertial navigation and visual odometry for navigation, while wireless protocols and algorithms enabled communication and coordination.
Awards:
- 2nd place out of 183 teams in International Competition on Smart Cities (ICSC) Competition 2023. (Link)
- 2nd place in Ebdaa Festival in the IOT category 2023. (Link)
- ASRT Project Fund.
- ITIDA Project Fund.
- Dell Technologies Envision the Future finalists.

Totaling to over 200k EGP in financial awards

Other
- Participated in the 11th Annual Ain Shams University International Conference held in Triumph Luxury Hotel.   "2023"