

HOSSAM FARRAG

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OBJECTIVE

Highly motivated and detail-oriented Mechatronics Engineering graduate with a specialization in Power and Mechanical Machines. Seeking an entry-level position where I can apply my technical skills, theoretical knowledge, and passion for innovation to contribute to the development and optimization of electrical systems.

EDUCATION

Arab Academy for Science, Technology and Maritime Transport	2019 - 2024
Bachelor of Mechanical Engineering	GPA: 3.1
Major: Mechatronics, Robotics and Automation	
Bachelor's Thesis: Biomechanical Energy Harvesting for Self-Powered Active Motion Sensor	Grade: A+

INTERNSHIPS

Pure Power Company for Solar Energy	Jul 2024 - Sep 2024
<i>Cairo, Egypt</i>	

- Learned about the solar energy system, including its types and components.
- Gained knowledge on how to design and measure solar installations for different sites.
- Conducted site assessments to determine the most efficient placement of solar panels.

Mantrac Heavy Equipment Company	Aug 2023 - Sep 2023
<i>Alexandria, Egypt</i>	

- Conducted inspections of electrical and mechanical systems on heavy equipment.
- Performed maintenance and repair tasks on excavators, bulldozers, and loaders.
- Troubleshoot equipment issues and implemented repair solutions.

Gupco Petroleum Company	Aug 2022 - Sep 2022
<i>Ras Shuqair, Egypt</i>	

- Inspected oil and gas production facilities for safety and efficiency.
- Monitored product quality through data analysis and quality control checks.
- Contributed to maintaining high product quality standards.

Canal Company	Jul 2022 - Aug 2022
<i>Nile Arsenal, Egypt</i>	

- Maintained and repaired canal infrastructure components.
- Prepared technical reports documenting inspection findings and maintenance work.
- Gained practical engineering experience in a real-world environment.

PROJECTS

Design a Solar Energy System for a Home, Including Costs

- Designed a complete solar energy system tailored for a residential home.
- Calculated the total energy requirements and designed an optimal configuration for solar panels.
- Conducted cost analysis including hardware, installation, and operational costs.

Testing and Installation of ATS Panels for a Site

- Conducted functional testing of Automatic Transfer Switch (ATS) panels for a site.
- Managed the installation of ATS panels ensuring seamless integration with the existing electrical system.
- Coordinated with the team to ensure safety and performance compliance during installation.

SKILLS

Control Systems:	Classic Control , PLC Programming
Electrical Engineering:	Power Electronics, Electrical Machines
Languages Skills:	Arabic (Native), English (Intermediate)
Soft Skills:	Problem Solving, Critical Thinking, Teamwork, Communication

EXTRA-CURRICULAR ACTIVITIES

IEEE AAST Branch, Self-Driving Car Competition

Sep 2022

- Designed and implemented path planning and control algorithms for autonomous navigation, including obstacle avoidance and lane keeping.
- Contributed to the development of simultaneous localization and mapping (SLAM) techniques for accurate vehicle positioning.
- Collaborated with team members to integrate hardware and software components into a cohesive self-driving system.