



HANEEN MEDHAAT

Electrical Engineer

Results-driven Electrical Engineer with a specialization in Electronics and Communications Engineering. Proficient in circuit design, integrated circuit development, and software programming across multiple languages including C++, C, Python, and Assembly. Adept at delivering innovative solutions, optimizing system performance, and applying engineering principles to solve complex technical challenges. Passionate about embedded systems, automation, and the practical application of Artificial Intelligence (AI) in modern engineering.

Contact

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Education

2018 - 2024

Bachelor's in Electrical and Communications Engineering

Higher Technological Institute (HTI) –
Cairo, Egypt

- Comprehensive knowledge of electronic systems, telecommunication networks, and circuit design.
- Proficient in applying theoretical concepts to practical engineering problems.
- Awarded commendable grades for academic performance and technical proficiency.

TECHNICAL SKILLS

- Programming Languages: C++, C, Python, Assembly
- Embedded Systems: Microcontrollers, Arduino, Raspberry Pi
- Software Tools: Microsoft Office (Word, Excel, PowerPoint), MATLAB
- Control Systems: Programmable Logic Controller (PLC)
- Artificial Intelligence.
- Technical Documentation.

Language

- **English: Proficient (written and spoken)**
- **Arabic: Native speaker**

PROJECT EXPERIENCE

Smart Home Automation Systems

- Designed and implemented a home automation system using embedded systems and IoT technologies.
- Developed software applications using C++ and Python to control household devices remotely.
- Integrated AI algorithms for energy optimization and automated scheduling.

Wireless Communication Systems

- Designed and simulated a wireless communication network using advanced electronic communication principles.
- Utilized Python for data processing and analysis.
- Applied knowledge of signal processing and telecommunications protocols to enhance system efficiency.

PROFESSIONAL COMPETENCIES

- Analytical Thinking: Adept at diagnosing technical issues and developing effective solutions.
- Problem-Solving: Skilled in troubleshooting and optimizing electronic and embedded systems.
- Team Collaboration: Experienced in working collaboratively with peers on academic projects.
- Continuous Learning: Committed to staying updated with emerging trends in electronics and communications.

CERTIFICATIONS & TRAINING

- Introduction to Embedded Systems
- PLC Programming Essentials
- Python for Engineers