

Abdelfattah Allam

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Programming Languages: Python, Java, C#, JavaScript, C/C++

Technologies: HTML, CSS, SQL, Git, Docker

Hardware Description Languages: VHDL

EDUCATION

Helwan University

Sep. 2021 – Aug. 2026

Bachelor's in Computer and Systems Engineering

Relevant Coursework: Programming in Java, Data Structures, Software Engineering, Database Systems, Linear Programming, Numerical Computing, Linear Algebra, Discrete Mathematics, Calculus III, Calculus IIII & Differential Equations, Computer Networks

WORK EXPERIENCE

Information Technology Institute

Jul. 2024

Summer Trainee

- Developed a solid understanding of Network Fundamentals, including IP addressing, subnetting, VLANs, and routing protocols (RIP, OSPF)
- Gained practical experience in Advanced Networking, working with VPNs, NAT, QoS, and network monitoring tools such as Wireshark
- Built foundational knowledge in Cybersecurity and Ethical Hacking, focusing on encryption, threat identification, and the use of tools like Nmap and Metasploit
- Worked on Firewall Configuration and Management, including creating security policies and implementing traffic filtering and intrusion prevention systems (IPS)

Ezz Steel

Sep. 2023

Engineering Intern

- Gained hands-on experience in basic networking concepts and configurations
- Learned how to apply networking skills in real-world environments
- Worked with virtualization platforms to create and manage virtual machines
- Explored the use and potential of firewalls for network security and threat mitigation
- Assisted in maintaining and managing Dell server

PROJECTS

Budget Managing Desktop Application | C++

- Developed a C++ application for tracking internet usage and expenses, enabling users to manage their monthly data budget effectively
- Designed and implemented core features for expense tracking, budget alerts, and usage reports
- Collaborated with a team using Git for version control, improving code quality and project efficiency
- Optimized data processing algorithms to ensure responsiveness, even with large datasets, enhancing user experience

MIPS Processor Simulator | VHDL

- Developed a MIPS processor simulator to execute and test assembly programs, enabling efficient educational simulations of low-level CPU operations
- Implemented key components including the ALU, registers, control unit, and memory, simulating real-world CPU behavior
- Integrated VHDL for hardware description, modeling and testing different processor stages
- Optimized the simulator for performance and accuracy

Hotel Management Application | Java

- Developed a hotel management system with an intuitive user interface to manage bookings, customer data, and room availability
- Designed and implemented the database structure using SQL for efficient storage and retrieval of booking records
- Built the application using Java to provide robust functionality, including adding, modifying, and deleting customer records and reservations
- Enhanced user experience through a clean, responsive UI, reducing navigation time and improving accessibility