

Abdallah Waleed Kamal Mousa Salem

Internet of Things & Big Data analysis

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Profile:

I am an ambitious and detail-oriented student specializing in Internet of Things (IoT) and Big Data Analytics, with a strong foundation in .NET development. My passion lies in creating smart, data-driven applications that seamlessly connect devices, extract valuable insights, and deliver impactful solutions. I am constantly striving to enhance my technical expertise, combining analytical thinking with practical implementation to build innovative systems that address real-world challenges.

Internships:

DotNet Stack, Information Technology Institute (ITI)

08/2025 – Present

- Learned Object-Oriented Programming with C#, advanced C# features, source control (Git), and Agile methodologies.
- Gained knowledge in HTML, CSS, client-side development with JavaScript and Bootstrap, and database fundamentals.
- Acquired skills in ASP.NET Core MVC, Web API, SQL Server, LINQ, Entity Framework, Material UI, and React.js.
- Completed real-world projects applying full-stack .NET solutions, integrated Agile practices, and solved coding challenges on HackerRank/LeetCode.

Fortinet Cyber Security Engineer, Digital Egypt Pioneers, Menoufia Branch

06/2025 – Present

- Led a Capstone Project applying IoT, Big Data, and Cybersecurity in a real-world scenario.
- Studied Cisco CCNA (200-301): network setup, troubleshooting, and LAN/WAN.
- Certified in Fortinet FCP - FortiGate 7.: firewall, VPN, and network security configuration.
- Certified in Fortinet FCP - FortiManager 7.: centralized network automation.

FullStack Web Development by Python, Information Technology Institute (ITI)

07/2025 – 08/2025

- Completed an intensive 120-hour full stack development program covering end-to-end web application development.
- Gained practical experience in Object-Oriented Programming (OOP) using Python.
- Developed dynamic user interfaces using client-side technologies (HTML, CSS, JavaScript).
- Designed and managed databases with PostgreSQL.
- Built and deployed web applications using Python frameworks such as Flask and Django.
- Applied best practices in scalable, secure, and maintainable web development.

IoT Applications Engineer, National Telecommunication Institute (NTI)

09/2024 – 10/2024

- Programming: Python
- IoT: Basic device integration, protocols, and concepts
- Cybersecurity: Network Security, Cyber defense
- Embedded Systems: Arduino, sensors, embedded IoT apps

- Freelancing: IT support, data entry, Python automation (Upwork/Fiverr)

IoT Applications Developer , <i>Information Technology Institute (ITI)</i>	08/2024 – 09/2024
• Databases: Relational DBs, SQL queries, and design principles	
• IoT Value Chain: Knowledge of device, communication, data & app layers	
• IoT Development: Built simple hardware-software integrated IoT apps	
• Hands-On Labs: Worked with Arduino, sensors, Bluetooth/NRF modules, actuators	

Education:

Specialization: Internet of Things (IoT) & Big Data Analysis, <i>Faculty of Computers & Artificial Intelligence, Menoufia National University (MNU)</i> Grade: Very Good	2023 – Present
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Skills:

Technical Skills

Software Dev

- OOP (Intermediate)
- software engineering basics (Beginner)

Database

- SQL basics (Beginner)
- database fundamentals (Beginner)

Language Skills

English

Very Good

Programming Languages

- Python (Intermediate)
- Java (Beginner)
- C++ (Beginner)

IoT

- Arduino, Sensors (Intermediate)
- IoT app development (Beginner)

Cybersecurity

- Network security (Beginner)
- Fortinet firewall basics (Beginner)

Arabic

Native

French

Very Good

Projects:

Bluetooth - Controlled Robot:

- Description: Improved command response by 35%, reaching <500 ms latency and 95% control accuracy and Enabled stable wireless communication within 10 m range using Bluetooth (HC-05) and Enhanced object detection by 100% coverage in 10-150 cm range through sensor calibration.
- Tools: Arduino Uno, HC-05, Ultrasonic sensor, L298N, DC motors, Arduino IDE, mobile
- Github: Bluetooth Robot Project

Smart E-Commerce Behavior Analytics Project:

- Description: Processed 995K+ user events with PySpark, improving scalability by 30% via parallel ETL and Achieved 96.7% model accuracy using XGBoost for predicting customer behavior and Reduced data pipeline runtime by 30%, and improved insight extraction efficiency by 0%.
- Tools: PySpark, Spark, Pandas, Seaborn, Matplotlib, XGBoost, Scikit-learn, Jupyter.
- Github: Ecommerce Behavior Dataset Project

Certificates:

CCNA: Enterprise Networking, Security, and Automation-Cisco Networking Academy (Oct,2025)	CCNA-Network Associate Routing and Switching - Cisco Networking Academy (Oct,2025)	Introduction to Artificial intelligence - Udemy (Sep,2025)
CCNA-Introduction to Networks Certificate - Cisco Networking Academy (Aug,2025)	Full Stack Web Development by Python - Information Technology Institute (ITI) (Aug,2025)	Robotics programming - Smart Academy - Egyptian Engineers Syndicate (Mar,2025)
Internet of Things (IoT) Applications - National Telecommunication Institute (NTI) (Oct,2024)	IoT Applications Developer - Information Technology Institute (ITI) (Sep, 2024)	Python Essentials 1 - Cisco Networking Academy (Oct,2024)
Develop Custom Events & Plugins in MOT - MaharaTech (ITI Mooc) (Aug,2024)	Cisco Certified Network Associate (CCNA) - Networking - MaharaTech (ITI Mooc) (May,2024)	Cisco Certified Network Associate Security (CCNA Security) - MaharaTech (ITI Mooc) (May, 2024)
Introduction to Network Security - MaharaTech (ITI Mooc) (July, 2024)	Computer Network Fundamentals - MaharaTech (ITI Mooc) (January, 2024)	

Extracurricular Activities:

Team Leader - Digital Egypt Pioneers 2025

Led a team of 23 students in a national-level digital innovation program and Organized 1 technical workshops and managed project deadlines and Developed leadership, communication, and project management skills.

Team Leader - masterofcoding | ORCA Programming Competition 2025

Led a 3-member team to 1st place among 18 teams in a national Python programming and competition organized by ORCA and Assigned roles, managed code structure, and ensured timely task completion and Demonstrated strong leadership, teamwork, and problem-solving skills under time constraints.

Team Leader - .NET Stack | Information Technology Institute (ITI), 2025

As the Team Leader for the.NET Stack at ITI in 2025, I was responsible for guiding and coordinating a group of 27 students. I ensured smooth collaboration, delegated tasks effectively, and supported the team in achieving both technical and project goals. My role also involved fostering communication between students and instructors, encouraging peer-to-peer learning, and creating an environment that strengthened both technical expertise and teamwork skills.