

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 |
| <ul style="list-style-type: none">• 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 |
| <ul style="list-style-type: none">• 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 |
| <ul style="list-style-type: none">• 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 |
| <ul style="list-style-type: none">• 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, Information Technology Institute (ITI)

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,

2023 – Present

Faculty of Computers & Artificial Intelligence, Menoufia National University (MNU)

Grade: Very Good

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-Introduction to Networks Certificate - Cisco Networking Academy
(Aug,2025)

Internet of Things (IoT) Applications - National Telecommunication Institute (NTI)
(Oct,2024)

Develop Custom Events & Plugins in MOT - MaharaTech (ITI Mooc)
(Aug,2024)

Introduction to Network Security - MaharaTech (ITI Mooc)
(July, 2024)

CCNA-Network Associate Routing and Switching - Cisco Networking Academy
(Oct,2025)

Full Stack Web Development by Python - Information Technology Institute (ITI)
(Aug,2025)

IoT Applications Developer - Information Technology Institute (ITI)
(Sep, 2024)

Cisco Certified Network Associate (CCNA) - Networking - MaharaTech (ITI Mooc)
(May,2024)

Computer Network Fundamentals - MaharaTech (ITI Mooc)
(January, 2024)

Introduction to Artificial intelligence - Udemy
(Sep,2025)

Robotics programming - Smart Academy - Egyptian Engineers Syndicate
(Mar,2025)

Python Essentials 1 - Cisco Networking Academy
(Oct,2024)

Cisco Certified Network Associate Security (CCNA Security) - MaharaTech (ITI Mooc)
(May, 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.