



# Yassine Hallous

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Tunis, Sousse – Tunisia

## PROFESSIONAL SUMMARY

A third-year Computer Engineering student specializing in Embedded Systems and IoT. Proven experience in app development, backend system design, and creating automated and smart solutions. Demonstrates strong leadership and project coordination skills through active involvement in IEEE. Seeking a final-year internship to apply technical skills and contribute to innovative projects.





## ACADEMIC EXPERIENCE




- **SofiaTech**  July 2025 - August 2025  
*Summer Internship* Ariana, Tunisia
  - Developed RuleGuard, a Python-based application that automates code verification for C source and header files against customizable rules predefined by SOFIOS guidelines
  - Created a Graphical User Interface (GUI) that provides real-time verification, detailed violation tracking, and exportable reports for enhanced code review efficiency
  - Reduced manual code review time by 70% through precise violation tracking and automated fix suggestions, ensuring code consistency and clarity across the development team
- **SofiaTech**  July 2024 - August 2024  
*Summer Internship* Ariana, Tunisie
  - Developed a Flutter mobile application integrated with ESP32 microcontroller programmed in Embedded C using ESP-IDF framework
  - Designed PHP/MySQL backend system with phpMyAdmin to store and manage DHT11 sensor data
  - Delivered real-time data synchronization between IoT devices and mobile interface, enhancing monitoring capabilities

## EDUCATION

- **Higher Institute of Computer Science and Communication Technologies (ISITCOM)** September 2023 - June 2026  
*Bachelor's Degree in Computer Engineering* Sousse, Tunisia
  - GPA: 16.63/20.00
- **Dar El Amen High School** 2023  
*Mathematics Baccalaureate* Kairouan, Tunisia
  - GPA: 14.3/20.00

## PROJECTS

- **MNIST Digit Recognition: Handwritten Digit Classifier.** October 2025  
*Tools: Python, TensorFlow/Keras, Flask, React, TypeScript, Tailwind CSS* 
  - Trained a Convolutional Neural Network (CNN) achieving 99.5% accuracy on MNIST dataset.
  - Built an interactive web application with React frontend and Flask API for real-time digit prediction.
- **CineMatch: An intelligent movie recommendation system.** October 2025  
*Tools: Python, Flask, Scikit-learn, React, TypeScript, Tailwind CSS* 
  - Built a recommendation system using machine learning algorithms to suggest movies based on user interests.
  - Developed a modern web platform using React and TypeScript.
- **Nexova: An intelligent platform that automates industrial processes.** November 2024 – Present  
*Tools: Node.js, TypeScript, PostgreSQL, Electron* 
  - Developed a backend system with TypeScript, Node.js, and PostgreSQL to process real-time IoT sensor data.
  - Designed RESTful APIs enabling seamless integration with frontend and IoT devices.
- **ExpenseTracker Mobile App:** April 2025  
*Tools: Java, XML, SQLite* 
  - Built a mobile application for secure expense tracking using Java.
  - Integrated SQLite for offline data storage and efficient management.

- **QuizNight:** March 2025  
Tools: Node.js, TypeScript, HTML, CSS, JavaScript   
◦ Developed a full-stack quiz game platform with dynamic user interaction.  
◦ Implemented user management, scoring system, leaderboards, and custom quiz creation.
- **Journal App:** February 2025  
Tools: Kotlin   
◦ Created a mobile journal app using Kotlin, allowing users to add, view, and edit personal entries.
- **Messaging System:** March 2024  
Tools: Linux, C   
◦ Built a messaging server in C on Linux, enabling users to create accounts and exchange messages.




## SKILLS

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- **Programming Languages :** C, C++, Python, Java, Kotlin, Dart, JavaScript, TypeScript, PHP, HTML, CSS
- **AI & Machine Learning :** TensorFlow, Scikit-learn, Pandas, NumPy, Flask
- **Mobile & Backend Development :** Flutter, Node.js, Express.js, MySQL, PostgreSQL, MongoDB, Firebase
- **DevOps & Cloud :** Docker, CI/CD, Nginx, AWS
- **Embedded Systems & IoT :** ESP32, Arduino, Raspberry-Pi, MQTT
- **Tools & Platforms :** Git, GitHub, Postman, Figma, Matlab, Kali Linux, Ubuntu


## HONORS AND AWARDS

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- **1st Place – IAS TAM Technical Challenge** October 2025  
IAS Tunisia Annual Meeting   
◦ Won first place with our startup **Defensys**, an AI-powered platform providing proactive application security before and after deployment
- **Best Android Project at GDG TechDays** April 2025  
GDG Sousse   
◦ Awarded best project among participants in Android development bootcamp focusing on Kotlin programming and mobile application development
- **3rd Place in RedRoom Hackathon** March 2025  
Securinets Hackathon   
◦ Secured 3rd place overall and 2nd place in CTF competition during 26-hour intensive cybersecurity hackathon

## VOLUNTEER EXPERIENCE

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- **Chair of the IAS, IES, PES Joint Chapter** October 2023 - Present  
IEEE ESSTHS Student Branch   
◦ Organized and led technical bootcamps and industrial visits for student members.  
◦ Coordinated logistics and secured sponsorship for major events like Sight Day Congress and Robots League 2.0.  
◦ Contributed to event planning as a member of the TSYP 11 Organizing Committee.

## CERTIFICATIONS

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- **Cisco Networking Academy:** [Python Essentials 2](#) July 2025
- **Cisco Networking Academy:** [Python Essentials 1](#) June 2025
- **TryHackMe:** [Pre-Security Learning Path](#) July 2025
- **Cisco Networking Academy:** [Introduction à la cybersécurité](#) June 2025
- **Cisco Networking Academy:** [Notions de base sur les réseaux](#) April 2025
- **IEEE:** [IEEEExtreme 18.0 Programming Competition](#) October 2024

## ADDITIONAL INFORMATION

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**Languages:** English (Fluent), French (Fluent), Arabic (Native)

**Interests:** Chess, Trading, Jiu jitsu