

Asmaa Hindawi

COMPUTER AND COMMUNICATION ENGINEER

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Summary

High-achieving published CCE Engineer and Merit-Scholarship recipient, distinguished by a consistent Dean's Honor List standing. I combine 3.5 years of technical experience in Networking, Cybersecurity, and AI with a unique background in Robotics education. Expert in engineering scalable IoT Intrusion Detection Systems (99.2% accuracy) and full-stack solutions. A proactive problem-solver with a sophisticated diagnostic mindset, I excel at bridging the gap between complex technology and end-user understanding to deliver secure, high-performance results in dynamic environments.

Education

Rafik Hariri University BE in Computer and Communication Engineering RHU Dean's Honor List	2020 - 2025
Al Galilee High School Lebanese Baccalaureate in Life Science	2017 - 2020

Publications

A. Hindawi, O. Al Halabi, S. Al Sabouh, and A. El Arid, "An Efficient AI-Driven Intrusion Detection System for Resource-Constrained IoT Environments," *2026 5th IEEE IMCET*, Beirut, Lebanon, 2026. **Published in IEEE Xplore.** [\[View Publication\]](#)

Experience

Global International School (GIS) Coding and Robotics Teacher Part-Time	Ketermaya – Lebanon Present
Delivered structured IT and Robotics instruction to 160+ students across 16 sections (Grades 1-8). Specialized in teaching programming logic (K-6) and hardware-software integration via BBC Micro:bit and MakeCode (Grades 7-8), focusing on algorithm design and engineering foundations.	
Integrated Digital Systems (IDS) Full-Stack Developer Remote	Beirut – Lebanon June – Aug / 2025
Developed a secure Laravel/React.js meeting reservation system featuring RBAC, real-time booking, and AI summarization. Optimized backend performance using MySQL and RESTful APIs, ensuring scalable data processing and streamlined Postman testing workflows.	
Rafik Hariri University Teacher Assistant	Mechref – Lebanon 2022 – 2025
Managed CCE lab operations and support for Windows systems (99.9% uptime). Facilitated CCNA networking labs (Cisco config/troubleshooting) and co-authored ABET-aligned manuals. Simplified complex AI, Logic Design, and Embedded Systems concepts for diverse student groups through expert technical communication.	
Jaber Consulting AI Engineer Remote	Beirut – Lebanon Aug - OCT / 2024
Developed and trained an RNN-LSTM deep learning model for gold price prediction, creating scalable data preprocessing workflows with feature engineering and missing value imputation. Compared model performance with RMSE and MAE metrics and benchmarked against Auto ARIMA, showcasing excellent skills in financial forecasting and machine learning model selection.	

Projects

BE Graduation Project – AI- Driven Intrusion Detection for IoT Networks | [GitHub](#) 2024 – 2025

Created an AI-powered real-time IoT network intrusion detection system (IDS) using machine learning. Implemented feature selection using Extra Trees, XGBoost, KNN, and SVM with 99.2%+ multiclass accuracy on the CICIoT2023 dataset. Integrated the model in Suricata and Telegram for real-time cyber-attack notifications and optimized it for low-resource, edge-device deployment.

Extracurricular Activities

Rafik Hariri University Mechref – Lebanon Social Media Manager of the IEEE – RHU Student Branch 2022 – 2024

Integrated technical and leadership roles within the TA position, managing web development, content strategy, and stakeholder collaboration for the IEEE branch. Spearheaded workshops and development activities that directly supported the engineering program's ABET accreditation process.

Skills & abilities

Languages: Arabic (native), English (fluent)

Technical Skills:

Software Languages: C++, Python, SQL, C#, PHP

Web Development: HTML, CSS, JavaScript, SCSS, Bootstrap, Tailwind, Laravel, React.js.

AI & Machine Learning Tools: ChatGPT, Google Gemini, GitHub Copilot, DeepSeek, Edge Impulse, TensorFlow Lite, Scikit-learn, XGBoost

Database: MySQL, Microsoft SQL Server

Server Management: Linux, XAMPP, MySQL Workbench, GitHub

Software: Packet Tracer, CST Microwave Studio, MATLAB, PyCharm, Arduino

IDEs: Visual Studio Code, Visual Studio
Adobes: Photoshop, Illustrator, Premiere

Volunteering

IEEE Day - Ambassador 2023 - 2024
IEEE Day 2023 & 2024 | Rafik Hariri University

IEEE YP Lebanon - Ambassador 2023
SYPLC 2023 | Holy Spirit University of Kaslik

Honors & Awards

IEEE 2023 & 2024
Student Activities Committee, IEEE Regional Exemplary Student Branch Award.

Certificates

Practical Cybersecurity Diploma	2024
Artificial Intelligence Diploma	2023
Cisco: Network Security	2023
CCNA3&4: Enterprise Networking, Security, and Automation	2023
CCNA2: Switching, Routing, and Wireless Essentials	2023
CCNA1: Introduction to Networks	2022
Entrepreneurship	2019