

MOHAMMAD AHMAD SHAABAN

+961 70731488 ♦ Beirut, Lebanon

MohammadShaabanwork@gmail.com ♦ linkedin.com/in/mohammadshaaban1

EDUCATION

Beirut Arab University

Bachelor of Engineering – Computer Engineering, CGPA: 3.91/4.00

Beirut, Lebanon

Sep 2022 – June 2026

SKILLS

Programming Languages: C++, Java, Python, C

Frameworks and Libraries: TensorFlow, PyTorch, OpenCV, Pandas, Scikit-learn, Matplotlib, NumPy

Development Tools: Git, GitHub, Bash

Concepts: Object-Oriented Programming (OOP), Data Structures, Algorithms, Multi-threading, Memory Management

Soft Skills: Communication, Leadership, Teamwork, Time Management

PROJECTS

Green Guardian – Autonomous Garbage Collection Robot (FYP) | [GitHub Repo](#)

- Designed and implemented an autonomous waste-collection robot using ROS2, SLAM, OpenCV and YOLO deployed on Raspberry Pi 5.
- Collected and manually annotated a dataset of 400 images using Label Studio, exporting YOLO-format bounding box labels for object detection training.
- Trained YOLOv11 Nano and Medium models using PyTorch, achieving 90% mAP for waste detection.
- Integrated perception with ROS2 navigation (SLAM mapping, AMCL localization, Nav2 planning), enabling the robot to detect waste, approach targets using bounding-box coordinates, and trigger the gripper FSM for autonomous collection.

Bank Account Management System

- Designed and developed a scalable banking system with robust database handling.
- Implemented core features such as financial transactions and security services.
- Practiced relational databases and software engineering fundamentals with Java and SQL.

Voice Assistant Home Automation

- Developed a voice-controlled home automation system integrating speech recognition with IoT devices.
- Implemented functionality for controlling lighting, temperature, and appliances via voice commands.
- Utilized Python for backend processing and communication with microcontrollers (Arduino, Raspberry Pi).
- Ensured seamless integration with smart home ecosystems using MQTT protocol and API integrations.
- Focused on scalability and security to support future device expansions.

CERTIFICATIONS

Ethical Hacking Essentials (EHE) — EC-Council & Coursera

[link](#) May 2025

Generative AI Cybersecurity & Privacy for Leaders: A Primer — Vanderbilt & Coursera

[link](#) May 2025

Securing AI and Advanced Topics — Johns Hopkins University & Coursera

[link](#) May 2025

Introduction to AI for Cybersecurity — Johns Hopkins University & Coursera

[link](#) May 2025

IC3 Digital Literacy Certification — Certiport / Pearson VUE

Jan 2025

Credential ID: wLa7F-HaRW

HONORS AND AWARDS

- Consistently on the Honors List every year for outstanding academic performance.
- Ranked First for Best Behavioral and Hard-Working Student across all school years.