

Mohammad Nour Smaysem

Computer Engineering Student · Software & Embedded Systems

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PROJECTS

Scout Troop Management Platform — *Node.js, Express, PostgreSQL, Tailwind CSS, Vercel* scout-troop.vercel.app

- Built and deployed a full-stack web platform managing 50–100 scouts across 5 sections, used by 8+ leaders, a supervisor, and a commander to replace manual paper records.
- Developed 10+ feature modules including member registry, per-member progress and badge tracking, treasury with running-balance charts, equipment inventory, and an events calendar.
- Implemented role-based access control with per-section credentials and built a charts dashboard summarizing membership distribution and financial flow.
- Deployed on Vercel serverless with a PostgreSQL (TiDB Cloud) backend and generated shareable public profile pages for each of the 50+ members.

IoT Security Tank — *C++, ESP32, ESP-NOW*

- Engineered a remote-controlled tank with an autopilot mode and real-time fire detection that triggers an automatic response.
- Established a low-latency peer-to-peer link between 2 ESP32 boards over ESP-NOW, eliminating Wi-Fi router dependency for control range.

Supermarket Management System — *Python, Tkinter (GUI)*

- Built a desktop application for real-time inventory and sales tracking with automated price calculation across the product catalog.

Embedded & IoT Systems — *C++, ESP32, Arduino, Telegram Bot API*

- Designed and programmed 4+ connected devices: a phone-controlled car, a Telegram-bot smart door lock, an IoT smart-home controller, and Arduino logic projects (memory game, millisecond-precision timers).

LANGUAGES & TECHNOLOGIES

Languages: Python, C++, C, Java, JavaScript, SQL, Assembly, VHDL

Web & Backend: Node.js, Express, REST APIs, HTML, CSS, Tailwind CSS

Databases: PostgreSQL

Embedded / IoT: ESP32, ESP-NOW, Arduino, Telegram Bot API

Tools & Platforms: Git, GitHub, Vercel, Quartus, PSIM, Linux

EDUCATION

Beirut Arab University — **Debbieh, Lebanon**

Expected Summer 2027

B.E. in Computer Engineering (150-credit program)

- Relevant coursework: Data Structures, Analysis & Design of Algorithms, Computer Networks, Computer Architecture, Microprocessor Organization & Design, Database Systems, Object-Oriented Programming, Digital Systems Design, Discrete Structures, Probability & Statistics.

LEADERSHIP & ACTIVITIES

Scout Member & Leader — Scout Organization

2014 – Present

- Organized activities and mentored younger scouts over 10+ years; designed and shipped the troop's management platform now used across all 5 sections.

Member — IEEE

2023 – Present

LANGUAGES

Arabic — Native

English — Intermediate