



# HADI AL SHMAISSANI

ELECTRICAL & COMPUTER  
ENGINEERING STUDENT

## CONTACT

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Ashrafieh, Beirut, Lebanon

## SKILLS

### Programming

- Python, C, C++
- JavaScript, TypeScript, SQL
- Verilog, VHDL, MIPS Assembly

### AI / Machine Learning

- PyTorch, MediaPipe
- Computer Vision, LLM / Gemini APIs
- Reinforcement Learning, On-Device ML

### Backend & Automation

- FastAPI, n8n, Webhooks, Twilio

### Cloud & DevOps

- AWS, Docker, Terraform, CI/CD
- Linux, Git, Self Hosted Infrastructure

### Embedded & Systems

- Arduino, FPGAs, SPICE
- Signals & Systems, ROS2, SUMO
- Computer Architecture, HW Verification

### Professional

- Communication, Ownership
- Time Management, Adaptability

## CERTIFICATIONS

*In progress / planned*

- AWS Solutions Architect (SAA-C03)
- HashiCorp Terraform Associate
- NVIDIA NCA-GENL & NCA-AIIO
- Certified Kubernetes Admin (CKA)

## LANGUAGES

Arabic, Fluent  
English, Fluent  
French, Intermediate

## PROFILE

Electrical & Computer Engineering student at the American University of Beirut (Dean's Honor List, cumulative GPA 4.0 of 4.0) with hands on experience across machine learning, computer vision, embedded systems, and cloud and DevOps. I build applied, real world systems, from AI accessibility tools to security automation pipelines, and I'm drawn to technology with tangible public impact, including healthcare, infrastructure, and digital transformation for underserved contexts.

## EXPERIENCE

**Undergraduate Research Assistant**, American University of Beirut, under Prof. Naseem Daher (*Jan 2026 – Present*)

*PyTorch, SUMO, ROS2, Reinforcement Learning*

- Research on context aware, learning driven autonomous ground vehicles and driver aggressiveness modelling using deep learning and reinforcement learning.
- Built and evaluated models with PyTorch; ran traffic simulations in SUMO and integrated with ROS2.
- Reformulated RL exploration bonuses and reward weighting with principled, citation backed alternatives.

**Teaching Assistant, FEAA 200**, American University of Beirut (*Fall 2025 – 2026*)

- Supported the faculty wide first year Introduction to Engineering & Architecture course.

**Operations Manager & Technical Expert**, Nabad Al Madina NGO, Beirut (*2024 – 2026*)

- Oversaw daily operations of a community clinic and fitness center to ensure smooth service delivery.
- Managed staff schedules, supplies, and logistics supporting program activities.
- Coordinated with healthcare professionals and trained volunteers to improve client care.

**STEM Tutor**, Studify (*2024 – 2025*)

- Tutored students in mathematics, physics, and introductory programming.
- Broke down complex technical concepts into clear, step by step explanations.

## EDUCATION

**B.E. Electrical & Computer Engineering**, MSFEA, American University of Beirut, Minor in Mathematics (*2024 – 2028*)

- Dean's Honor List. Cumulative GPA 4.0 of 4.0. Concentrations in Artificial Intelligence and Control & Robotics.

**Lebanese Baccalaureate, General Sciences**, Beirut Baptist School (*2009 – 2024*)

- GPA 18.205 of 20 (High Distinction).

## LEADERSHIP & AFFILIATIONS

**Web Development Officer**, Engineering Student Society (ESS), AUB (*2026 – Present*)

- *Sub cabinet position running web development for the Engineering Student Society.*

**Active Member & Participant**, IEEE, ACM, Engineering Student Society, Honor Society (*2024 – Present*)

- Regular participant in IEEE / WIE workshops, AWS sessions, and peer course support for EECE 230 & 490.