Nehma AL HAJJ
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Born 27/11/1996, Kalamoun
Nationality: Lebanese

Education

2018-2019	**Master 2** Engineering science, specialty Medical and Industrial Communication Systems Technology.
2018-2019	**Bachelor** in Electricity and Electronics at Lebanese University, Faculty of Engineering, 1st Branch, Tripoli.
2013-2014	**General Science** Baccalaureate at Islamic Al-Manar Secondary School

Professional Experience

July 2018 – September 2018: Internship at Ideation Invest Company

- New Arduino-like **IoT Board**, a guide and practical examples on **Arduino IDE**.
- Face Emotion recognition using **Python**, **OpenCV** and **Raspberry Pi**.
- **Arduino**, **Raspberry Pi** and **MQTT** (ESP32-8266).
- Long Range transceiver **LoRa Shield.**
- Read PWM pins for **Raspberry Pi Zero** audio.
- **3D printing** on Ultimaker Cura.
- **Programs**: Eagle, Inventor, Sketchup, Catia.

Academic Projects

- **Final Year Project:** Rehabilitation Exoskeleton Control using Bio-Kinematic signals.
- Printed Circuit Board **(PCB) design** and **construction**.
- Project on "**smart**" objects connected to the internet, **IoT**.
- **Assembly** programming on **IDE 68K** microprocessor
- Simulation on **Matlab, VRealm, GUI**.
- Construction of an Electromagnetic Crane.
- Games programming on **Visual Studio**.
- **Neural Network** project on **Matlab**: Epilepsy seizures detection using EEG signals.
- **Database** project on "Public Transportation" using **SQL server management**.

Conferences, Workshops and Activities

- IEEE day and other IEEE activities (as a **member**)
- Arduino and Android Workshops
- "Internet of Things: Applications and technology"
- "IEEE Lebanon Communications Workshop _ IEEE LCW'17_"
- "Smart Buildings"
- "The Future of Data Storage"
- "Cyber security"

- "IoT and how it will change our future" _Cisco
- VEX Robotics Competitions- AUB, NDU
- "Women in Data Science, WIDSAUB19"- AUB

Computer Skills

- **Languages**: C – OOP (C#, VB.NET) - JavaScript – Markup (HTML/CSS) – Python – Script (shell) - SPARQL – SWRL.
- **DataBase** : Ms Access, SQL.
- **IDEs**: Visual Studio – HTML Kit – MATLAB – Mathematica – Arduino – PyCharm.
- **Circuit Design Programs**: TinyCad – ISIS Proteus 7 – LabVIEW – Eagle – Inventor – AutoCAD – Fritzing – Sketchup – Ultimaker Cura.
- **Other Programs**: Logixpro – Ecodial - XG5000 – XPBuilder – Automgen – Protégé.
- **Version Control** : **Git**/SourceTree.
- **Operating Systems :** Windows**,** Linux.
- **Microsoft Office:** Word, Excel, Access, Publisher, PowerPoint, OneNote and Outlook.

Certificates

- Festo training in Pneumatics (basic and Advanced Levels).
- Festo training in Electro pneumatics (basic and Advanced Levels).
- Programmable logic controllers PLC (automating, design, mode of operation, programming languages, industrial communications, troubleshooting...).
- IOT training (Arduino, Raspberry Pi).
- INJAZ Lebanon:
  - o Personal Finance session
  - o HeadStart session
  - o Steer your Career session
- "Artificial Intelligence for Decision Making: A Close Look".
- Networking and Cisco training.
- Fifth International Conference on Advances in Biomedical Engineering ICABME 2019.

Publications

- N. AL HAJJ, J. CHARAFEDDINE, M. KHALIL, S. AL-FAYAD (2019). "Using Bio-Kinematic signals for Rehabilitation Exoskeleton Control". ICABME 2019, Lebanon. *Accepted*

Languages

- **Arabic**: Native language.
- **English**: Intermediate (speaking, reading, writing).
- **French**: Fluent (speaking, reading, writing).

Volunteer Experiences

- Team member and teacher for Social Aid "Ibad Al Rahman" (2014 - 2019).
- Secretary in "Ibad Al Rahman" (2015 - 2017).

Hobbies

Reading, Scouting, photography, drawing and painting.

References Available upon request