

# Nicolas F. Abboud

+961 3 286453 | [nicolasabboud96@gmail.com](mailto:nicolasabboud96@gmail.com)

M.Sc.in Mechatronics; Software and Automation Engineer; Interested in Web Development and Artificial Intelligence.

## Education

- **Masters of Science in Mechatronics**, School of Mechanical Engineering, Newcastle University, United Kingdom. *(September 2017 - October 2018)*
  - **Master's project and thesis:** [Autonomous three-wheeled omnidirectional mobile robot with facial and voice recognition capabilities.](#)
  - Graduated with **Distinction**, and awarded prize for academic performance.
- **Bachelors of Technology in Mechatronics Engineering**, University of Balamand, Lebanon. *(September 2014 – June 2017)*
  - **Bachelor's project:** Internet of Things in Smart Home Automation.
  - Graduated with **Distinction**, and on **Dean's Honor List** for entire degree.

## Work Experience

- **Software and Web Developer**, Self-Employed Freelancer, *(April 2020 to present)*
- **Software and Automation Engineer**, Green Essence Renewable Energy Solutions, Lebanon *(January 2019 to May 2020)*
  - Lead software engineer on “*Wattron*- data logging device for solar inverters and smart energy meters”.
    - Developed backend PHP apache web-server.
    - Design and maintenance of Database (MySQL)
  - Electrical and Electronics support for various solar PV projects.
  - Associate engineer on technical proposal for the Lebanese Center for Energy Conservation (LCEC).
- **Software Engineering Intern**, Green Essence Renewable Energy Solutions, Lebanon *(June-August 2017)*
  - Developed a server-side webservice in C# on a Raspberry Pi 3, operating Windows 10 IoT Core.
  - Integrated basic web development (HTML, PHP) for remote monitoring and control.
  - Delivered a working prototype as proof of concept.
- **Research Intern**, Laboratoire d'Ingénierie des Systèmes de Versailles (LISV), University of Versailles Saint Quentin, Versailles, France. *(June-July 2016)*
  - Study of electromagnetic induction principles applied in induction powered vehicles.
  - Design and implementation of photodiode laser PCB for magnetic field detection.
  - Worked in a research environment which taught me technical organizational skills.

## **Projects**

- **Wattron** data logger for solar inverters and smart meters.
- Autonomous three-wheeled omnidirectional mobile robot with facial and voice recognition.
  - Masters project [https://youtu.be/Hsz\\_atQDfnQ](https://youtu.be/Hsz_atQDfnQ)
- C# based Pac-Man game, Arduino powered uv/grayscale-navigation mobile robot, PV solar streetlight, JAVA based social network
  - Part of B.Tech. degree from University of Balamand.
- Web development portfolio:
  - Github <https://github.com/8bit-nyk>
- LinkedIn: <https://linkedin.com/in/nicolas-abboud-135798158>

## **Operational skills**

- Programming Languages:
  - C#, JAVA, Python. (proficient knowledge)
  - C, Assembly, VHDL. (limited -for a specific course/project- knowledge)
- Full stack web development: The Odin Project (HTML, CSS, JavaScript, Ruby on Rails, SQL/Database design, VCS Git)
- Engineering design and simulation: Adobe AutoCAD (2D & 3D), Adobe Inventor, MatLab and Simulink [Control Systems]
- Networking operational knowledge: CCNA1 & CCNA2 (certificates), Distributed Control System, and SCADA.
- Linux OS environment operational knowledge
- Robotics Operating System basics
- Additional software with previous operational knowledge:
  - Design: Altium Designer 2016.LabView MultiSim.
  - Industrial Automation PLC Programming: Delta WPLsoft 2.30, Seimens Sematic Step7.
  - Microcontroller Programming: Quartus II 9.1, MPLAB X IDE v2.26 (PIC18F microcontroller), and Easy68K.
  - GearPro Design by Dontyne Systems.

## **Additional Skills**

- Multilingual **Arabic** (mother tongue), **English** (fluent), **French** (Intermediate)
- Excellent communication skills, both written and verbal.
- Interpersonal Skills:
  - Counselor at SES-LAU 2012 summer camp.
  - Member of the Lebanese Scouts Association from 2012-2016, and Rover Scouts Leader in 2015-2016.
- Project and time management skills attained throughout studies and work.

## **General Interests and Hobbies**

- Artificial Intelligence
- Problem solving and building things (tinkering, puzzles, sudoku, chess)
- Outdoor nature activities (hiking and camping)