

# Hiba Assamaouat

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## EDUCATION

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### New York University Abu Dhabi (NYUAD), Abu Dhabi, UAE

*Bachelor of Science in Electrical Engineering*

Aug. 2021 - May 2025

- Studies included a semester abroad in New York, a short-term stay at NYU Czech Republic, and a seminar in Paris
- Relevant Coursework:** Electronics; Control Systems; Photonics; Communication Theory; Electromagnetics; Instrumentation; Embedded Systems; Object-Oriented Programming

### Lycée Français International Théodore Monod (LFITM), Abu Dhabi, U.A.E.

*French Baccalaureate, Summa cum laude ("Mention très bien")*

Jun. 2021

## EXPERIENCE

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### Wireless Research Lab | NYUAD

*Research Assistant*

Nov. 2024 – Jun. 2025

*Abu Dhabi, UAE*

- Reviewed & extracted around 10 papers on Synthetic Aperture Radar (SAR) image despeckling and super-resolution techniques, identifying Deep Learning (DL) approaches & architectures.
- Conducted thorough search of open-source and private dataset for super-resolution training.
- Collaborating with a PhD student to design and implement chosen DL architectures in Pytorch.
- Training and evaluating proposed models on the NYUAD High Performance Computing (HPC) cluster.
- Participated in the 6G Summit 2024 in Abu Dhabi, exchanging research insights on wireless communications and remote sensing technologies with keynote speakers.

### Redal | REDAL VEOLIA

Jul. 2023

*Electrical Engineering Summer Intern*

*Rabat, Morocco*

- Conducted site visits to different types of electrical substations across the city, gaining insight into their design, operation, and maintenance.
- Collaborated with departmental leaders and the dispatching team to understand the coordination and management of power distribution networks.
- Assisted technicians from various departments in missions troubleshooting and repairing power distribution components in both urban stations and remote rural areas.

### Plastic Recycling Lab | NYUAD

Oct. 2022 – May 2023

*Abu Dhabi, UAE*

*Research Assistant*

- Worked in affiliation with the global Precious Plastic community, following open-source principles in sustainable design and recycling practices.
- Contributed to the design and early development of a plastic recycling system aimed at converting HDPE bottle caps, collected through campus recycling, into 3D printing filament.
- Collaborated with team members to support project advancement, ensuring alignment with research goals and timelines.
- Organized on-campus tabling interventions to engage students, raise awareness about plastic recycling, and encourage participation in collection and outreach activities.
- Led lab tours for students and external visitors, presenting research progress and promoting awareness of the lab's sustainability efforts.

## RELEVANT SKILLS

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**Frameworks & Development Tools:** PyTorch, Simulink, Altium Designer, KiCad, VS Code, PlatformIO, ArduinoIDE, Fusion360, Git, LTspice

**Programming:** MATLAB, C/C++, Python, HTML, CSS, JavaScript, L<sup>A</sup>T<sub>E</sub>X, VHDL

**Languages:** Arabic: *Native* | French: *Fluent* | English: *Fluent* | Spanish: *Intermediate*

**Software:** Microsoft Office, iMovie, Notion, Procreate

**Hardware:** Soldering, Surface-Mounted Device (SMD) Soldering, Circuitry, Arduino, AdaFruit Circuit Playground, AtMega32u4

## ENGINEERING PROJECTS

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### **Multi-Stage Peltier Module (TEC) Based Refrigerator | NYUAD**

Feb. 2025 – May 2025

- Designed and built a fridge from scratch using Peltier modules instead of traditional compressors.

### **Electrocardiography (ECG) Printed Circuit Board (PCB) Design | NYUAD**

Sep. 2023 – Dec. 2023

- Designed and fabricated PCB for ECG signal-reading, focusing on minimizing signal noise

\*See all projects in portfolio file attached to the application submission

## LEADERSHIP EXPERIENCE

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### **Student Government | LFITM**

*Student Representative of the Middle and High School*

Sep. 2017 – Jun. 2021

*Abu Dhabi, UAE*

- Served as an elected representative on student councils for both middle and high school levels.
- Facilitated and organized student meetings, school events, and initiatives.
- Led student welfare efforts by conducting a school-wide survey on mental health and well-being, using the results to inform and support targeted initiatives.

### **Model United Nations (MUN) | LFITM**

*Event Organizer and Vice-President, Security Council*

Dec. 2020 – Jun. 2021

*Abu Dhabi, UAE*

- Managed event logistics for MUNMO, a French-language Model United Nations conference bringing together delegates from across the Middle East.
- Prepared and distributed briefing materials and procedural documents to international participants.
- Served as Vice-President of the Security Council, facilitating debate and maintaining diplomatic protocol.

## EXTRACURRICULARS

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### **Intercollegiate Soccer | NYUAD Athletics**

Took part in the NYUAD women's soccer team.

Sep. 2021 - May 2023