

# Hiba Assamaouat | Electrical Engineer

✉ ha1647@nyu.edu ☎ +212 682 867 960 💬 [hiba-assamaouat](#) 🌐 [hiba-assamaouat.github.io](#)

Recent electrical engineering graduate seeking an entry-level role to deepen practical experience in software-driven systems, signal processing, and embedded design.



## EXPERIENCE

### Wireless Research Lab | NYUAD

*Research Assistant*

Nov. 2024 – Jun. 2025

Abu Dhabi, UAE

- Conducted a comprehensive review of ~10 papers on Synthetic Aperture Radar (SAR) image despeckling and super-resolution, analyzing deep learning approaches and architectural trends.
- Surveyed and assessed open-source and private SAR datasets for suitability in super-resolution tasks, contributing to dataset selection and experimental planning.
- Worked closely with a PhD researcher to study and compare candidate deep learning architectures, developing a solid conceptual understanding of model design and training workflows.
- Contributed to research discussions on model evaluation strategies and computational requirements for SAR super-resolution experiments on HPC systems.

### Redal | REDAL VEOLIA

Jul. 2023

*Electrical Engineering Summer Intern*

Rabat, Morocco

- Visited and studied multiple electrical substations across the city, gaining hands-on exposure to power distribution system design, operation, and maintenance practices.
- Worked with departmental leads and the dispatching team to understand coordination, monitoring, and decision-making in power distribution network management.
- Assisted technicians in troubleshooting and repairing power distribution components in both urban substations and remote rural areas, supporting field operations.

### Plastic Recycling Lab | NYUAD

Oct. 2022 – May 2023

*Research Assistant*

Abu Dhabi, UAE

- Worked in a lab affiliated with the global Precious Plastic community, applying open-source principles in sustainable design and plastic recycling.
- Contributed to the design and early development of a plastic recycling system converting HDPE bottle caps collected on campus into 3D-printing filament.
- Collaborated with lab members to support progress and maintain alignment with research objectives and timelines.
- Led outreach activities, including on-campus tabling and lab tours, to raise awareness and encourage student participation in recycling initiatives.

## EDUCATION

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

Aug. 2021 - May 2025

*Bachelor of Science in Electrical Engineering*

- 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.

Jun. 2021

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

## RELEVANT SKILLS

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

**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

---

### 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

## EXTRACURRICULARS

---

### Intercollegiate Soccer | NYUAD Athletics

2021 - 2023

Took part in the NYUAD women's soccer team.

### Indoor Rock Climbing | NYUAD Athletics

2024 - 2025

Pursued independent training at the NYUAD indoor wall.