

# Anan Hefny

Portfolio: <https://ananhefny.wordpress.com>  
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## SUMMARY

Passionate fresh graduate looking to develop solutions to global energy needs, specifically in increasing access to clean, sustainable energy.

## PUBLICATIONS

Hefny, Anan, Van Bork, Noah, Jackson, Alec, Rodgers, Tyler Gittelsohn, Daniel, et al.

"Cleaning of PV Panels on Mars"

## PROJECTS

### Senior Design

- Designed smart, autonomous PV panel cleaning system

### Advances in Power Systems

- Modelled and optimized power system by solving Unit Commitment problem using MATLAB

## TECHNICAL SKILLS

- Programming languages: C++, MATLAB, Python, C
- CAD: obtained AutoCAD Certified User Certificate
- Schematic capture tools: OrCAD Capture
- PCB design: OrCAD PCB Editor
- Obtained SAE High Voltage Safety and PPE certificate
- Hardware Description Languages: VHDL, Verilog
- MS Office

## SPORTS INVOLVEMENT

- RIT Dubai Varsity Basketball team player

## EDUCATION

### Bachelor of Science in Electrical Engineering

Rochester Institute of Technology (RIT) - Dubai,  
September 2018 - May 2023

- GPA 3.58 / 4.00, *cum laude*
- Global Scholars Program | 2022-2023 | Rochester Institute of Technology, NY

## EXPERIENCE

### Robotics Intern

Dubai Future Labs, June 2022 - August 2022

- Designed robot-object interface and configured robot arm to perform automated cooking recipe
- Designed and sliced 3D models, produced printed objects and maintained 3D printer

### Strategy Intern

Siemens Energy, February 2021 - September 2021

- Worked with executives to develop project road maps and business growth plans and evaluate potential partners
- Developed senior management level presentations and Memorandums of Understanding that communicate company strategy to internal and external stakeholders
- Conducted market research and statistical analysis and produce presentations and spreadsheets to communicate results

### Research Intern

RIT Dubai Electrical Engineering Department, June 2020 - August 2020

- Developed a labelled audio corpus of Arabic speech to be used in a natural language processing application
- Contributed to a research paper describing process of creating corpus

### Electrical System Lead

Formula SAE Electric - RIT Dubai, 11th Outright/ 54 teams  
April 2020 - June 2022

- Designed and built battery cell-level fuses and a 1kW resistive load bank with cooling for fuse testing
- Designed and built custom 600 V battery with individual cell fusing and connected 700 cells by spot welding
- Designed, simulated and tested all electric vehicle circuit boards including the safety circuit driving the high voltage battery's relays
- Designed electric vehicle low voltage, high voltage and charging system schematics and power distribution system
- Designed and built electric vehicle wiring harness with 100 wires
- Created bill of materials for the vehicle's electrical systems, managed procurement of all electric parts and inventory
- Led a team of 5 students and conducted weekly teaching sessions