# Lawrence C. Abu-Hammour

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To obtain an internship within the engineering industry. In addition to enhance my skill set and gain valuable experience.

## Education

MAY 2021

### Bachelor of Engineering / SUNY Maritime College, Bronx, NY

Mechanical Engineering, ABET Accredited; GPA: 3.6
Coursework: Circuit Analysis, Thermodynamics, Dynamics, Materials Science, Engineering Graphics, Introduction to Electric Machinery, Engineering Economics, Fluid Mechanics, Machine Design, Heat Transfer, Computer-Aided Engineering, Applied Electronics

2015-2019

### Dartmouth College, Hanover, NH

Completed 128 credits as an Engineering Science major with a 3.2 GPA
Coursework: Statics & Solid Mechanics, Control Theory, and Lumped Systems

## Experience

**JAN 2018– MARCH 2018**

### Research Intern / Integrated Mathematical Oncology at Moffitt Cancer Center

- Built hundreds of mathematical models surrounding chemotherapy, radiation therapy, and virotherapy using MATLAB scripting
- Completed an independent research project centered around optimizing uniform drug delivery and high drug saturation in tumor cells found in Pancreatic Adenocarcinoma (PADC)
- Mentored by Moffitt research scientists, Dr. Kasia Rejniak and Dr. Aleksandra Karolak

**AUG 2017 – NOV 2018**

### Teaching Assistant / Dartmouth Emerging Engineers

- Tutored approximately 10 engineering majors a week in engineering pre-requisites
- Helped with test preparation and offered helpful study skills

**JUNE 2017 – NOV 2018**

### Undergraduate Research Assistant / Wilder Physics Department at Dartmouth College

- Performed data science research with Professor James W. LaBelle on hundreds of visual data sets using MATLAB scripting on medium-frequency burst atmospheric waves under the NASA Space Grant

SEPT 2015– SEPT 2018

### Shop Teaching Assistant / Machine Shop at Thayer School of Engineering at Dartmouth College

- Certified to run, teach, and maintain various mechanical machines such as: Laser Cutters, 3D Printers, Vertical and Horizontal Bandsaws, Sanders, Manual Mills, DI WireBender, Thermaforms, Solidworks software, and Manual Lathes

## Affiliations & Activities

- Hispanic Scholarship Fund Recipient, 2018-2019
- Institute of Electrical and Electronics Engineers (IEEE) Member, 2018- Present
- American Society of Mechanical Engineers (ASME) Member, 2018- Present

Society of Hispanic Professional Engineers, Dartmouth Fencing Club, Alpha Theta Gender-Inclusive Greek House, Gender-Inclusive Greek Council, and Summer Sing Dynasty

## Skills

**Programming Languages (Skill Levels)**: MATLAB (Expert), C Programming Language (Competent), VHDL (Competent), Python (Some), HTML (Competent), CSS (Competent), Javascript (Some), LaTeX (Expert), SQL (Some), R, Linux, SolidWorks, Granta's CESEduPack, GD&T, AutoCAD, Revit, CorelDraw, LogiSim, Vivado
Microsoft Office, Google Suite, Windows Movie Maker, Adobe Premiere Pro CS6, Lightroom Classic, Audacity, and Salesforce

**Languages**: Arabic-Modern Standard, Jordanian, Moroccan, Conversational Spanish, Elementary Japanese and Elementary Tagalog

## Projects

**Control Theory: Obstacle-Detecting Duck Car** *September 2018-November 2018*

Engineered a Robotic Duck Car that uses an Infrared Sensor to detect an obstacle and maintain a distance of 9 inches between the car and an obstacle at all times using basic control theory and a Proportional-Derivative Controller

**Solid Mechanics: Lenticular Truss Bridge** *June 2017- August 2017*

Engineered lenticular truss bridge using Solidworks (CAD/Simulation). The bridge withstood 6.33 kN of applied force until the point of failure and withstood the most applied force in the entire class

**Introduction to Engineering: The Morton 401A** *September 2016-November 2016*

Engineered and prototyped a relay-powered smoke-clearing device that activates using a household smoke detector. Device's purpose is to efficiently filtrate and ventilate smoke particles to allow emergency evacuation and significantly reduce significant property damage which, in turn, reduces human displacement and financial burden following a tragedy involving fire. Worked in collaboration with the Hanover Fire Department, Thayer School of Engineering, and Dartmouth College.