

Serge Sarkis

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Education

- MS in Mechanical Engineering | Lebanese American University (LAU), Lebanon** Sep 2020-Present
Thesis Subject: 3D printing of ionic polymer metal composite using the direct assembly method.
GPA: 3.87
- BE in Mechanical Engineering | Notre Dame University (NDU), Lebanon** Sep 2015-Jun 2020
Final year project: Optimization of a micro-thrust measuring device for pulsed plasma ablation
GPA: 3.89

Experience

- R&D engineer at dox technologies** Oct 2021-Present
- Optimize DOE for efficient battery testing
 - Investigate Lithium-ion battery degradation
 - Integrate degradation characteristic in Machine learning pipeline for battery lifetime predictions
- STEM Tutor at Geek express** Feb 2021-Present
- Teach App development with MIT app inventor, AI with Python and Data science with Python classes
- Pre-Sales engineer intern at Middeast Power Systems (an ITG company)** Jul 2019-Aug 2019
- Developed precision cooling solutions and UPS system solutions for data centers and IT rooms.
- Undergraduate assistant researcher at NDU** Jan 2018-Nov 2019
- Project 1: Human Joint Impact Measurement and Optimization*
- Performed a kinetic analysis of human leg motion while jumping
 - Tailored a numerical optimization approach to determine the muscle/ligament force loading
- Project 2: Automated tape placement optimization*
- Created a MATLAB GUI code coupling the optic, thermal and mechanical simulations of an automated tape placement
- ## Projects & Workshops
- Goal seeking autonomous robot using Arduino. Nov 2018
 - Sorting between organic and recyclable images using an SVM model. Jun 2021
 - Trajectory planning and control of pick and place, 5DoF, U-bot using CoppeliaSim. Dec 2020
 - Prepared and held App development workshops in collaboration with Africell and Njala University Mar 2021
 - Participated as an instructor in the AI hackathon-Y4S(AI 4 climate) in collaboration with Mohamed Bin Zayed university Jul 2021

Skills

Languages

Arabic
French
English

Computer Programs

AutoCAD 2D, SolidWorks MATLAB,
C++, python, PLC, MIT App inventor,
Ansys Polyflow and transient thermal,
Homer, ROS.

Numerical Optimization

Genetic algorithm
Gradient descent