Nadine Arar

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Summary of Qualifications

- Programming and data analysis experience using MATLAB, Excel, and Python (Numpy, Pandas, Pyplot, Matplotlib).
- CAD modeling skills with SolidWorks developed through coursework, design team and personal projects. (portfolio: www.nadinearar.com)
- Lab experience through course labs such as tensile strength machine, pipetting, electroplating, and soldering.

Projects

Personal Website
Sep 2020 – Present
- Developed a Personal portfolio website by implementing **Adobe illustrator** and **After Effects** alongside **HTML/CSS**. (nadinearar.com)

STM electron Microscope
Feb 2020 – Mar 2020
- Designed an STM machine to be able to measure sustainable tunneling current during Nanotechnology Engineering Design Day by utilizing **CAD**, **circuit design**, **MATLAB**, **chemical principles** , and **machinery** throughout the process.
- Awarded the best Teamwork out of 20 groups for our ability to communicate and work effectively.

Transportation Technology Course
Sep 2017 – Jan 2018
- Performed car maintenance procedures such as: changing disc brakes, oil, filters, and tires
- Operated **tools** and **machinery** including a hoist, tire changer, impact wrench, and welder.

Experience

Mechanical and Electrical Team member
Jan 2020 – Present
Waterloo Rocketry
- Improved on the propulsion system and the remote launch control system box (RLCS) CAD models using **SolidWorks** to ease the machining and building process.
- Conducted Research in the electrical team finding COTS GPS analyzing their cost and performance.
- Experience in operating procedures of machining equipment (**mill, lathe**) and processes (**cryogenics**).

Club Leader
Sep 2016 – Jun 2019
Environmental and Social Justice Club, Father Michael Goetz S.S
- Coordinated a full day conference hosting hundreds of students around the GTA bringing awareness and promoting change regarding global, societal and environmental issues.
- Analyzed behavioral patterns regarding waste and transportation methods of students resulting in reducing garbage volume by 30 percent and the school's overall carbon footprint.

Education

University of Waterloo
Sep 2019 – Present
Candidate for Bachelor of Applied Science in Honours Nanotechnology Engineering
- Relevant Courses:Structure and properties of Nanomaterials, Nanotoxicology; Nanotechnology Engineering Practice, Introduction to Materials Science and Engineering, Introduction to Computational Methods (MATLAB), Advanced Calculus and Numerical Methods 1 (MATLAB), Introduction to Programming for Engineers (Python).