

DONALD DURU

DESIGN ENGINEER

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Engineerdonald.com

SKILLS

CAD

- SolidWorks used on various projects involving **GD&T**, **FEA Analysis**, and **sheet metal design**
- SolidWorks used to draft 2D engineering drawings with FAI dimensions

MECHANICAL

- **3D Printing** and **Laser Cutting** used to rapidly prototype parts
- Created 3D models based on **DFM/DFA** principles
- Prototyping and testing, including use of measurement and test equipment
- Familiarity with manufacturing processes such as CNC machines, **injection molding**, and **sheet metal fabrication**
- Programmed **PLC** (Ladder logic) for the control of conveyors, pumps, and pistons

ELECTRICAL & SOFTWARE

- C++, MATLAB, Soldering, Wiring, LabVIEW, LOGO-Siemens, FANUC

SOFT SKILLS

- Teamwork and Collaboration
- Project management
- Strong Work Ethic

PROJECT

NEXUS 1.0

- A smart autonomous robot

WALLY 1.0

- An electronic aid for the visually impaired.

EDUCATION

UNIVERSITY OF PRINCE EDWARD ISLAND

BASc in Sustainable Design Engineering

Sep 2017 – April 2023

- Excellent Standing | Overall Average 87%

AWARDS

- UPEI Award in Engineering 2022
- International Scholastic Award 2022
- Parks Canada Innovation Award 2018
- Engineers PEI Award, 2018
- Academic Excellence Award (2018 – 2022)

RELEVANT SCHOOL PROJECT

SUNLY | SOLAR TRACKER | Student Design Engineer | UPEI, Charlottetown, CA

Sep/22 – Present (5 months)

- As the technical lead in this project, I oversaw the mechanical and electrical aspects of the tracker
- Designed in SolidWorks the solar rack and mount for the linear actuators that will rotate the rack
- Created preliminary electrical schematics for the control components of the system, which provided a clear understanding of the electrical circuit required for the tracker
- Contributed to project reports, documentation, and presentations to communicate the design, analysis, and results.
- Ensured that the project remained within budget and on schedule.

SHAW GROUP | SHED | Student Design Engineer | UPEI, Charlottetown, CA

Sep/21 – Apr/22 (8 months)

- As the project manager, I led a team of 4 in designing an outdoor living module (Shed)
- Utilized SolidWorks to model parts of the shed
- Conducted structural analysis on the shed by running various tests, including simulations for snow loading, live loading, and dead loads.
- Built a shed prototype using 3D printing and woodworking techniques for rapid testing and delivering tangible early-stage proof of concepts
- Created 2D engineering drawings for manufacturing and assembly
- Ensured that all design and construction met industry standards and regulations

EXPERIENCE

STEAM PEI | STEM Teacher | Charlottetown, PE, CA

May/21 – Present (1 year 10 months)

- Developed and delivered model/lessons and camp activities that incorporated science, engineering, math, art, and technology
- Led programs for groups of up to 20 youth, ensuring the safe delivery of all activities, including adherence to COVID-19 protocols
- Collaborated with other educators (in camps and across PEI K-9 schools) to develop and deliver engaging and relevant curricula.

EFFICIENCY PEI | Energy Savings Advisor (Intern) | Charlottetown, PE, CA

May/19 – Aug/19 (4 months)

- Actively sought out and engaged customers on the subject of green energy rebates, resulting in an increase in sales of heat pumps and LED bulbs.
- Educated customers on the benefits of energy-efficient choices and provided product knowledge to support informed decision-making.
- Provided energy assessments and recommended energy-efficient solutions to residential and commercial customers.

UPEI | Student Research Assistant | Charlottetown, PE, CA

Jan/18 – Aug/18 (8 months)

- Developed a barcode scanner app (under supervision) for patients and nurses at Queen Elizabeth Hospital (QEH), which helped to resolve scheduling conflicts that nurses often encountered
- Designed and fabricated three laboratory fixtures, gaining experience in welding, drilling, and cutting sheet metals.