Ayman Islam

Electrical Engineering Co-Op Student

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EDUCATION

Bachelor of Electrical Engineering
Co-op, Class of 2026
Memorial University of Newfoundland
GPA: 3.8/4.0

SKILLS

KiCAD, Altium Designer
LTSpice, PSpice
PCB Design, SMT Soldering
Oscilloscopes, VNAs, EMC Testing
Digital & Analog Circuit Design
RF & Filter Circuit Design
Python, C++, MATLAB
Microsoft Office Suite

INVOVLEMENT

MUN Student Design Hub (SDH):

- SDH Board Student Advisor
- Working with professors, funders, and board members to improve student design and extra-curricular project opportunities at MUN

CanadianCancer Society:

- Relay for Life Participant since 2021, raising over $1000 for cancer research

Tutoring:

- Tutor refugee children with the Association for New Canadians

ACHIEVEMENTS

Scholarships:

- Entrance scholarships from the University of Waterloo, Queens University, and MUN
- J.M.C. Facey Engineering Scholarship, NL Electoral District Scholarship, Gov. of NL Research Inspired Student Enrichment (RISE) Award

Soccer:

- Feildians Provincial Soccer team, 2015 - Present
- Represented NL at the Canadian National Championships
- High school and provincial team captain

EXPERIENCE

SOLACE POWER | MOUNT PEARL, NL | APR 2024 - PRESENT

Hardware Design, Integration, and Testing Co-op

- **Designing**, **populating**, **testing**, and **debugging** PCBs for wireless power transfer systems
- **Designed** LC filters to reduce noise in RF power circuits using Altium Designer and LTSpice
- **Designed** a current sense PCB that successfully provides overcurrent protection for systems. This PCB successfully shuts down the system in 13 microseconds.
- **Testing** using oscilloscopes, EMI analyzers, VNAs, impedance analyzers, to improve system efficiency

MUNSTAR-1 CSA STUDENT TEAM | ST. JOHN'S, NL | SEPT 2023 – PRESENT

CubeSat Electrical Power System Designer

- **Developed** an inhibitor PCB to delay CubeSat power-up for the first 30 minutes post-launch, supplying DC power to all other subsystems after the 30 minutes

PARADIGM ENGINEERING | ST. JOHN'S, NL | JAN 2023 - PRESENT

Team Lead and Electrical Hardware Designer

Autonomous Karting Series: Creating an autonomous go-kart to compete in May 2025 at Purdue University, Indiana:

- **Designed** a PCB to safely regulate and distribute power from a battery for the electrical system, and a control PCB allowing computers to communicate with mechanical components
- **Designing** a suitable racing system, **sizing** optimal components such as motors and batteries
- **Conducting** overall project management to maintain operational efficiency, **guiding** mechanical, electrical, software, and business sub-teams, **optimizing** team member utilization and maintaining a well-organized project timeline
- Principal liaison with sponsors and other stakeholders, **raising** over $40, 000

F1Tenth: Created an autonomous racing vehicle to compete in the F1 Tenth competition. Placed top 10 in May 2023 in San Antonio, Texas:

- **Soldered** PCBs, **wired** various components
- **Configured** a system containing a LiDAR, motor controller, and NVIDIA Jetson GPU

NEWFOUNDLAND AND LABRADOR HYDRO | ST. JOHN'S, NL | AUG - DEC 2023

Protection, Controls and Communications Electrical Co-op

- **Designed**, **reviewed**, and **created** packages for generator excitation system upgrades
- **Supported** on-site construction and commissioning, **created** as-built drawings for new generator-exciter systems
- **Interpreted**, **reviewed**, and **edited** AC and DC schematics for various systems

TRAINING WORKS | ST. JOHN'S, NL | JAN – APR 2023

Software and Project Developer Co-op

- **Developed** an app and online platform for use by offshore workers to increase safety on-board as a part of the Canadian Supercluster: Fatigue Risk Mitigation Project

CAHILL TECHNICAL SERVICES | MOUNT PEARL, NL | MAY – AUG 2022

Instrumentation and Controls Electrical Co-op

- **Designed**, **programmed**, and **wired** a PLC-based system to automate the Churchill Falls underground heating control
- **Installed** and **troubleshot** PLC systems, **wired** systems, **programmed** Human Machine Interfaces, **monitored** and **exported** data for various systems using VTSCADA, **created** and **interpreted** drawings for PLC systems using AutoCAD

VERAFIN INC | ST. JOHN'S, NL | JUL – AUG 2021, JUL – AUG 2019

***Summer Internships:* 2021, 2019**

- **Learned** to code using Python, **assisted** with programming operations
- **Collected** and uploaded customer data using Salesforce software