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
Python, C++, MATLAB
Microsoft Office Suite
Technical Writing

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 - AUG 2024

Hardware Design, Integration, and Testing Co-op

- Designed, populated, tested, and debugged PCBs for wireless power transfer systems
- 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
- Characterized and tuned systems to improve wireless power transfer 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