Brad Whynot

Electrical Engineer (EIT)

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EDUCATION

Dalhousie University, Halifax — *B.Eng Electrical*

September 2019 - May 2024

WORK EXPERIENCE

Waterlogged Robotics, Dartmouth N.S — Electrical Engineer (*Co-op)*

March 2025 – Ongoing

- Led the development of an autonomous underwater glider.
- Glider is intended to be more viable for independent researchers with the ease of sensor integration.
- Created Wiring schematics for the glider.
- Utilized Python for real-time data processing and analysis.
- Created reports for operations and project process.
- Managed Build of materials.

IntegraSEE, Dartmouth N.S — *Freelance work*

February 2024 – Ongoing

- Led the development of a Raspberry Pi system to gather and analyze data from muscle and clam habitats.
- Integrated sensors for environmental monitoring and Hall Effect signal capture.
- Utilized Python for real-time data processing and analysis.
- Integrated Google Drive API for secure data storage and retrieval.
- Developed visualizations and reports for operations.
- Developed app for pixel measurements with the addition of machine learning later in development.

Welaptega Marine Ltd, Dartmouth N.S — *Design Technician (Co-op)*

January 2022 - April 2022

- Worked on multiple active R&D projects valued totaled over $2 million.
- Specialized in R&D for a $250,000 project that uses electro-optical measurement systems and pressurized electrical systems to measure underwater chains.
- Solely engineered instrument to allow for underwater 3D Scanning with materials already allocated to the project's kit.
- Developed marketing material for the project during down time.
- Completed multiple tests involving Inrush current limiting and In-air/In-water camera accuracy.
- Designed 3D models for prototyping in design review processes.
- Solo team lead for inrush current limiting and 3D printing projects.

SKILLS

3D modeling/ 3D Printing: Solidworks, AutoCAD.

Computer Programming: C, C++, Python, VHDL and Verilog

Circuit Designs and Simulation: LTSpice

Operation of Electrical Lab Equipment

Spreadsheet Management

NON-TECHNICAL SKILLS

Communication & Interpersonal: Organized team meeting and verified project was on schedule, within both academia and workplace.

Team Lead: Able to operate as a designated team lead for many projects in both academia and workplace.

PROJECTS

Engineering Capstone Project with NovaResp Technology

February 2023 — December 2023

- Providing research into appropriate sensors that will aid NovaResp's artificial intelligence for predicting sleep apnea.
- Implementation of designated sensors onto CPAP masks without restricting wearability.

Engineering Robotic Design Competition

May 2022 — September 2022

- Programmed a robot to autonomously move through an obstacle course with the use of lidar.
- 3D modeled a redesigned chassis for the robot to deactivate and collect hidden mines placed throughout the course.
- Implemented internal elevators using servo motors to store up to six mines within the robot.
- Performed under a high stress environment, finishing top 8 out of 25 teams.
- Produced a 38-page technical report outlining our design processes, technical drawings, sample code and competition results.

ACADEMIC AWARDS

Hebbville Academy Principal's Award

Johnson Foundation Scholarship

Extra Curriculars

Active Dalhousie Esports Society Admin

Active within Dalhousie Biking Society