

EMMA MACKAY

OBJECTIVE To obtain full-time spring and summer employment in an engineering related field and utilize my work and academic experience to benefit the company.

EDUCATION **UNIVERSITY OF PRINCE EDWARD ISLAND: ENGINEERING DIPLOMA**

- Enrolled in 2nd year Engineering with Industrial Engineering specific courses
- Top student overall with an average of 95%
- Maintain honors in every university course
- Full-tuition scholarship

EXPERIENCE **LIFEGUARD- CARI COMPLEX**
January 2012-Present

Responsible for ensuring the safety of patrons using the facility by recognizing and providing aid to patrons when required. Also responsible for keeping statistical and maintenance records as well as completing general maintenance duties.

SURF LIFEGUARD- PEI PARKS
June 2012-September 2013

Responsible for ensuring the safety of patrons using the beach front and waterfront at Basin Head Provincial Park. Responsible for educating patrons of the dangers of the water as well as providing tourism information upon request. Responsible for recognizing and preventing rescue situations as well as taking immediate action in urgent and high stress situations. Responsible for providing water support and first aid care.

AWARDS

- Association of Engineers PEI Award for top overall 1st year engineering student
- Ernest and Bernice Smith Engineering Award
- 1st Year Analysis Award for excelling in engineering analysis
- Governor General's Award for top overall student at Colonel Gray
- Cox and Palmer Swimming Award for top academic female swimmer

EXTRACURRICULAR

- Member of the UPEI Varsity Swim Team (*2012-Present*)
- Member of the UPEI Engineering Society (*2012-Present*)
- Member of the Charlottetown Bluephins Swim Team (*2004-2012*)
- Competed with the 2009 Canada Games PEI Swim Team
- Member and Treasurer of the Colonel Gray Free The Children Club (*2009-2012*)
- Played lead alto saxophone in various jazz ensembles and big bands (*2007-2012*)

PROJECTS

MAGINE SNOWBOARDS SIDEWALL ASSEMBLY DEVICE

Designed and built a pneumatic fixture device to hold the sidewalls of a snowboard to the core during the initial assembly phase.

- Communicated with client to determine the requirements of the design.
- Developed an economical device that could be operated by a single user and would function with all sizes of boards produced by the company.
- Completed detailed analysis to determine whether the concept was feasible.
- Built and tested the device to demonstrate its effectiveness.
- Completed various reports to update the client on the progress of the project.

DUAL TEMPERATURE HEAT TRANSFER DESIGN

Designed a concept for use by PEI farmers that would allow for the combination of a crop storage building and a workshop while using a single heat source to maintain two different temperatures in the separate areas.

- Talked with various farmers to determine their needs
- Developed multiple concepts and compared alternatives
- Completed analysis to calculate heat requirements
- Built and tested a prototype to determine whether the concept was feasible.

SKILLS & ABILITIES

- Fluent in English and French
- Highly skilled with report writing and formatting documents with MS Office
- Experienced with the use of Excel
- Exposure to AutoDesk Inventor as well as other CAD programs
- Gained management and leadership skills through organizing and directing a small team of engineering students in various design projects
- Ability to communicate effectively both orally and through writing
- Can work both independently and with a group

REFERENCES

DON B. MACEWEN, M.ENG., P.ENG

Engineering Professor at UPEI

Work: (902) 566-0399 Home: (902) 961-2928

macewen@upei

WILLIAM CALHOUN

Head coach of the UPEI Varsity Swim Team and Charlottetown Bluephins

(902)316-1300

swimming@upei.ca