Myles Borthwick

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Calgary, AB

Versatile and highly trainable engineering graduate with an academic background in mechanical and software engineering. Recognized for public speaking and team leadership, with industry experience in software development, sustainable energy design, drill data management, customer service, and biomedical data analysis. As a creative problem-solver that thrives in diverse team environments, I pride myself on my strong work ethic and my commitment to excellence as both an individual and a team player.

KEY SKILLS

Experienced Team Leader • Data Analysis • Mechanical Design • Object Orientated Programming • Public Speaking
Agile Project Management • Software Development • Technical Writing • Critical Thinking
Adaptive Learner • Excellent Written and Verbal Communication • Highly Personable • Conflict Resolution

TECHNICAL SKILLS

- **Data Analysis:** Excel, MATLAB, Simulink, pandas (Python Data Analysis), Finite Element Analysis
- **Theory:** Mechanics of Materials, Thermodynamics, Fluid Dynamics, Machine Design, Advanced Calculus, Structural Design, Project Management, Database Design, Machine Learning, Control Systems, Heat Transfer, Multi-Phase Flow, Hydraulic Systems, Reliability and Testing
- **Programming Languages**: Java, Python, C++, C#, JavaScript
- **Database**: MySQL, MongoDB, NoSQL
- **Web Technologies**: TensorFlow, Apache Spark, Rest API, Django, Node.js, Spring

TECHNICAL EXPERIENCE

M.Eng. Capstone Industry Project– Developed a Java Spring Web Service Application for Pason Systems (Drill Data Management Solutions)

- Created a RESTful web service matching client specifications and functionality
- Performed application testing using unit and integrated testing procedures
- Employed Agile project management methodology
- Managed code development and versioning through GitHub

B.Sc. Capstone Design Project – Designed and developed a Low-Cost Replicable Solar Water Heater for application in a Mozambique maternal waiting home.

- Developed iterative theoretical heating models within Excel to heat a 1500L water tank to 50^{o}C from groundwater temperatures and meet the water needs of up to 30 tenants
- Modeled heating system within SolidWorks and created working drawings for complete system sourcing and construction
- Performed life-cycle assessment, risk analysis, material selection, and system control analysis
- Built scaled prototype for testing purposes
- Collaborated with a multidisciplinary group of Medical and Engineering students

EDUCATION

M.ENG. - SOFTWARE ENGINEERING (2020-2021)
University of Calgary

B.SC. - MECHANICAL ENGINEERING (2014-2019)
University of Saskatchewan

WORK EXPERIENCE

Pizza of Waterton/Pearls Cafe, Waterton AB
Evening Supervisor, Seasonal 2016-2019, 2021

- Trained a total of 8 employees across two seasons
- Organized and led a team of 3-4 employees during peak hours including the company's most profitable day to date ($13,000)
- Worked calmly and efficiently during high-stress rushes
- Worked independently during late-night restaurant events

Blakiston & Company, Waterton AB
Rental Operator, Seasonal 2017-2019

- Assisted in the construction and design of new storefront and interior
- Created designs for company apparel and posters
- Managed and rented recreational watersport equipment and bikes
- Organized large customer groups of sizes exceeding 20 people
- Performed safety briefings on rental equipment
- Repaired defective paddleboards, kayaks, and electric bikes

University of Calgary, Calgary AB
Research Assistant, May-October 2015

- Awarded best presentation by NSERC (Natural Sciences and Engineering Research Council)
- Presented graduate research at the Banff Biomedical Engineering conference
- Produced a formal lab abstract for publication
- Analysed measured data collected from two separate control groups (n=6, n=8) using Excel and MATLAB
- Aided in creating a reliable testing procedure
- Assisted in surgical procedures necessary for muscle testing

AWARDS & ACCOLADES

- **Led evening kitchen staff through record breaking summer in profit**
  April-October 2021
- **Presented research results at 16th Annual Biomedical Conference in Banff**
  November 2015
- **Abstract published in JURA (Journal of Undergraduate Research in Alberta)**
  September 2015
- **Recipient of NSERC Presentation Award at the University of Calgary**
  August 2015