

Elizabeth Morrow

2A Mechatronics Engineering

189 Albert St
Waterloo, ON
(705) 868-9774

elizabeth-morrow.com
elizabethannmorrow@gmail.com

Software Skill Summary

Languages: C#, Java, C/C++,
HTML5

OS: Windows, Linux

IDEs: Visual Studio,
Eclipse,
CodeComposer,
Android Studio

Technical Skills

Software Development

- Embedded Systems
- Applications

Design and 3D Modeling

- Interface Design
(Photoshop, Balsamiq)
- Mechanical Design
(Solidworks)
- Electrical Layout
(Altium, AutoCAD)

Process Automation

- Powershell & Bash
Scripting

Interests

Bilingual - French
Traveling - Last seen in Rio
Hockey - Team captain
Musicals - Triple threat

Projects

Solar Race Car Team Electrical Lead

- Ongoing C firmware development, CAN network specialist, C# and Python diagnostic applications development, team manager.

Watchtower Robot

- Designed and wrote C++ software for a robot to scan a user-defined radius for movement using an ultrasonic sensor, and fire projectiles until the target is subdued.

Professional Experience

Control Systems Design

Aug. 2014 – Dec. 2014

MedAvail Technologies Inc.

- Lead designer and developer of handset testing application in C#. Used Fast Fourier Transforms to analyze signal quality, saving company \$15,000.
- Reworked machine log converter application(C#), implemented hashing and multithreading resulting in a 300% improvement in execution speed.
- Integrated log converter into utility software, translating machine logging events in real time.

Software Co-op

Jan. 2014 – Apr. 2014

Midnight Sun Solar

- Developed CAN message parser using C# and SQL database for solar car diagnostics.
- Wrote firmware for lights control board (C).
- Lead design and CAD of electrical system test harness (SolidWorks).
- Soldered and debugged PCBs referencing layouts in Altium.

Education

Candidate for Bachelor of Applied Science

2013 - present

Honours Mechatronics Engineering

University of Waterloo

Relevant Courses:

- Data Structures and Algorithms (structured software design, algorithm analysis)
- Microprocessors and Digital Logic (PLC & FPGA programming, ARM assembly)

Volunteer Work

Student Design Teams Director

- Liaison between design teams and university administration, in charge of organizing, scheduling and running events and demos

University of British Columbia Research Assistant

- Extracted and analyzed DNA from blood samples, attempting to detect blood doping more efficiently in Olympic athletes