

WORK EXPERIENCE

Software Consultant - BDO Solutions

- Brought a large scale two year long project to completion for Dairy Farmers of Ontario by developing features in C# and SQL-Server for a multi-tenant application that manages statewide milk distribution.
- Merged over 200,000 data entries from a client database to a local one using 'SQL Server Integration Services' and SOAP. Developed the pipeline flow by mapping source and destination columns.
- Managed the initial development for a newly secured contract with Dairy Farmers of Nova Scotia, refactoring the above application according to customer requirements.

Software Engineer - DBRS Limited

- Implemented full-stack features on an internal web app using C#, Angular and Entity Framework, thereby reducing time duration of financial analyst meetings by over 50%.
- Wrote Excel plug-in(s) in C# that is used by over 200 analysts allowing them to import, process and export financial data as well as submit changes directly to the production database, saving ~1100 hrs/month in company time.
- Migrated databases with over 150,000 entries from Oracle to SQL Server using C# and Powershell scripts.

Web Developer - Knowroaming Inc

- Developed a browser testing GUI with JavaFX and Selenium to create automated test suites, increasing UAT (User Acceptance Testing) coverage for the main website by about 80%.
- Led the development of the customer facing mobile website using PHP, jQuery and Java.

Infrastructure Security Analyst - Maple Leaf Foods

- Identified viruses inside the company network, got introduced to security, networking and protocols.
- Analysed internal computer security trends and statistics using IronPort, to catch a worm that multiplies itself and sends over 35,000+ malicious emails over the weekend.

RECENT PROJECTS

Space Invaders

- Programmed space invaders in C which plays on the LCD display of an ARM- Keil microcontroller.
- Used a multi-threaded architecture, semaphore locks and hardware interrupts to interface with peripherals such as the Joystick, LEDs and Push Buttons.

Path Follower

- Configured, tested sensors, and programmed microcontroller using C creating a path following robot. Illuminated surface with infra-red LED and steered the robot using photo-diode.

Pebblepsy

- Developed a nocturnal epilepsy tracker and prevention application. Wrote the Android platform to store and upload data to the web, recording and visualizing the seizure-like incidents.
- Won 'Best Pebble App' at Hack the North. Featured On : [Hacker News](#), [DevPost](#) , [Med Gadgets](#)

Potentiometer

- Calibrated an infrared sensor output using Arduino, C and Python to fit a curve to predict the distance from an object with 0.15 cm accuracy

Music Notes

- Used frequency analysis to transcribe classical piano pieces into sheet music using MATLAB. Resynthesised the notes clip and used statistics to determine the accuracy of resynthesis.

MP3 Player

- Programmed an MP3 player software in C with functionality such as skipping to the next/previous songs and playing the song at an altered speed rate.

SKILLS

Languages:

Java, C#, C++, C, JavaScript, Python, MATLAB

Embedded:

Arduino, Keil ARM, Altera DE-2, Cortex M3, PLC, FPGA

LEADERSHIP

Machine Learning Presenter

Informed large professional audience (40+) on neural networks, deep machine learning and advanced machine learning.

PCB Design Director

Introduced PCB Design best practices, introductory level common mistakes and demoed EAGLE software in front of 150+ students.

Networking Director

Led the organization and marketing of a student-alumni networking event.

EDUCATION

University of Waterloo

3A Mechatronics Engineering
Graduating May, 2018