

Craig Loewen

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4A Mechatronics Engineering – Option in Management Science, University of Waterloo

Skills

- Programming Languages: C#, C, C++, Java, Python, MATLAB, Android, SQL, and Visual Basic
- Concepts: Computer Vision, Machine Learning, Real Time Systems, User Interface Design
- Skills: Product and Program Management, Product Design, Problem Solving and Debugging as evidenced by being ranked 1st in the Mechatronics Engineering class

Work Experience

Program Manager Intern, Microsoft, Redmond, WA, United States May – August 2017

Software and devices Industry, Worked on the Windows Console Team

- Proposed and implemented a change in the default console colors for the Windows Operating system, resulting in an article being featured in technology news website ‘The Verge’ to exhibit the new changes
- Wrote functional specs for 6 features and oversaw their implementation during the 4 month internship

Process Engineering Student, General Motors, Saint Catharines, ON September – December 2016

Automotive Industry, Powertrain Production Facility, Transmission Machining

- Implemented a camera to recognize and sort defects using optical recognition software and PLC logic
- Developed a program to create a readable quality report from OEM custom machine code in C#

Quality Engineering Student, Siemens, Konstanz, Germany January – April 2016

Postal Automation Industry, Global leader in automation, Airports and logistics division

- Designed and implemented a new tool calibration system and device to reduce calibration time by 40%
- Designed a PCB for the sensor’s hardware interface, and programmed the user interface in C++

Student Group Leader, General Motors, Ingersoll, ON May – August 2015

Automotive industry, Builds GMC Terrain and Chevrolet Equinox, leanest automotive plant in Canada

- Reduced line downtime by 20% through skilled management of over 30 unionized employees
- Independently executed a 5S continuous improvement project to reduce repair costs by \$30,000 a month

Technical Projects

Spot Me www.craigloewen.com/spot-me August 2016 - Present

- Developed an open source application that uses deep learning algorithms to analyze your exercise form when using weights and provide personalized training advice, in C# on the Universal Windows Platform
- Collaborated with a graphics designer to develop product branding, resulting in a 3.5% conversion rate for subscriptions to product news and the application being featured on www.xboxdynasty.de

Artificial Intelligence to Learn a Game www.craigloewen.com/aiprojectinfo January – May 2016

- Developed a Neural Network that is modified by a genetic algorithm to learn a simple game that exceeds the performance of an average human player within the first 10 games

Real-Time Dinosaur Runner Game December 2015

- Built a dinosaur running game using multi-threading and hardware interrupts for faster response time
- Achieved a mark of 100% while developing on the RTX Real-Time operating system kernel on the ARM Cortex-M3 board using C and constrained by 32 KB of RAM

Awards and Achievements

University of Waterloo September 2013 - Present

- First in Class Engineering Scholarship, for being ranked 1st in academics in a class of 140+ Students
- Richard Motzeg Memorial Scholarship, for excellence in academics and extracurricular leadership
- President’s Scholarship of Distinction, for academic achievement

Extracurricular Activities and Interests

President of University of Waterloo Weightlifting and Fitness Club

September 2015 – Present

Languages: Conversational German and French