

Overview

Programming Skills: Developed various programs using C++ and Java

CAD: Manufacturing experience with AutoCAD, Solidworks, and SpinFire

Processing: Developed Process Instructions and weld line simulations

Written Communication: Drafted research reports and Scopes of Work

Academic Excellence: Dean's Honours – Ranked 1st in class with 4.0 GPA

Experience

MANUFACTURING ENGINEERING | MAGNA INC. | SEPT – DEC 2014

- Developed Process Instructions for weld line operators according to lean manufacturing principles
- Prepared, recorded, and documented prototype simulations for the development of future weld line programs
- Developed Scope of Work documents and coordinated with 10+ vendors for R&D projects including abrasive blasting of galvanized components and robotic labeling of shipping racks
- Modified plant layouts and weld tooling using AutoCAD and Solidworks
- Conducted time studies and downtime studies

CIVIL ENGINEERING | B. M. ROSS & ASSOCIATES | JAN – APR 2014

- Drafted topographical site layouts, floor plans, and elevation drawings for various wastewater and structural projects with AutoCAD to be used for construction
- Compiled, analyzed, and summarized 50+ years of field data for use in research reports and project proposals
- Surveyed sites for future development projects and drafted site layouts using GIS reference points
- Conducted research into water supply and wastewater issues including effluent irrigation and catch basin inflow

Education

CANDIDATE FOR BAsC | CLASS OF 2018 | UNIVERSITY OF WATERLOO

- Major: Systems Design Engineering – Currently in 2A academic term
- SYDE 121 – Digital Computation: Developed C++ programs using arrays, classes, inheritance, and pointers
- SYDE 192 – Digital Systems: Designed asynchronous and sequential circuits with ICs and Arduino hardware
- SYDE 223 – Algorithms and Data Structures: Developed programs using linked lists, stacks & queues, trees, and recursion and analysed runtime

Projects

Portfolio: <http://goo.gl/ks7kzU>

C++

- POSTNET barcode encoder/decoder
- Grade processing system
- Flight tracking
- Weather forecasting
- Salary calculations

Java

- Alarm clock using Arduino Uno hardware

Custom Computer Design

- Overclocked and liquid-cooled ITX gaming system
- Professional-grade workstations

Report Writing

- 50+ page research report on the cause of excessive suspended solids concentration levels at a wastewater treatment plant
- Design report on the iterative development process of the STEP Garden

Design

- The STEP Garden: a compact, affordable, automated urban gardening solution
- Sony Personal Audio System Redesign: Applied Human Factors Engineering Principles to improve ergonomics, accessibility, and safety

Achievements & Extracurricular

- Recipient of UW President's Scholarship of Distinction and UW Alumni@Microsoft Scholarship
- Additional 2 years work experience as a produce clerk at Loblaws
- Piano – Grade 8 RCM level
- Member of Toastmasters International from October 2014 with 7 speaking awards
- Lifelong ambition to become a LEGO Master Builder