# MATTHEW PAGNAN

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#### SUMMARY OF SKILLS

- Computer Science degree
- Computer skills including C#, C++, CUDA, SQL, MS Office, Latex, Python, Java, HTML, CSS, JavaScript, Linux, Microsoft Windows
- Experience Programming Robots Lead Programmer for a robotics team
- G class drivers license

#### **EDUCATION**

# Bachelor of Science, Honors Computer Science Co-op

expected completion May 2016

· McMaster University, Hamilton, ON

# Kincardine District Secondary School, Kincardine

graduated June 2012

- · Ontario Scholar
- · OSSTF District 7 Award for recognition of helping with the sound system for school assemblies.

#### Relevant Courses

- Data Structures and Algorithms
- Computer Architecture
- Software Design Fundamentals
- Principals of Programming
- Databases
- Functional Programming

- Computer Graphics
- Software Requirements
- Distributed Computing
- Web Computing
- Human Computer Interfaces

### **PROJECTS**

#### **C**#

- · Music Player and Score Board Side project for outreach event with Robotics
- · Checkers game Group project Focused on MVC design
- · Turn based Tactics game High school project
- · Work Request System UI that made queries to a database Highschool Project

## C++

- · Basketball shooting robot Robotics team
- · Inner tube hanging robot Robotics team
- · Particle cannon Graphics Project OpenGL
- $\cdot$  Terrain Generator Graphics Project OpenGL
- · 3D 3rd person plant growing simulator Graphics Project Group Project OpenGL
- · Mandel Box image renderer Accelerated with openACC with self guided camera
- · Running particle simulations with GPU CUDA research project

#### Python

- · Maze Generator
- · DNA Sequence match updater
- · Various file parsing and filtering applications

#### **EXPERIENCE**

#### Software Assistant

September 2015 - May 2016

Gupta Labs - McMaster University

Hamilton, ON

- · Worked independently creating applications for Bio-Med research professor and students
- · Created applications that would filter through 100,000+ compounds and keep only compounds of interest
- · Created a simple product key protection module for applications.
- · Created documentation for all applications made

# Grocery and Receiving

June 2014 - August 2015

Kincardine, ON

- Sobeys Kincardine
- · Stocked product, Assisted customers in finding items.
- · Worked 40 hour weeks during the summer. 8 hour shifts.
- · Received orders.
- · Entered invoices into receiving logs.
- · Setup weekly and monthly end displays

Kitchen Duty

June 2013 - September 2013

 $Kincardine,\ ON$ 

 $Erie\ Bell$ 

- · Worked in a fast paced environment
- · Cleaned dishes, Prepared food, Cleaned the Kitchen at the end of the night

# Research and Development (co-op)

January 2012 - June 2012

Tiverton, ON

- Bruce Power
- Editing a virtual simulator of one of the reactors
  Taught myself SQL so I could make queries to the database. able to learn new technologies
- · Created a C# application that used SQL commands to connect to an ORACLE database and generate queries.

# Lead Programmer

January 2007 - April 2012

High school Robotics team (Club)

Kincardine, ON

- · Worked with PLCs and other robotic parts (Sensors and Motor Controllers)
- · Taught myself how to program a robot able to independently learn new skills in order to accomplish a project
- · Set up routers for communication between the robot and driver station.
- · Programmed the robot within the 6 week build season.
- · Worked as a key member a part of a team to get the robot working Able to work independently and with a team.
- · During last year on the team became a mentor to junior members of the team and taught them how to program robots.
- · Organized a summer Science and Technology week for public school kids during the summer

# **EXTRACURRICULAR ACTIVITIES**

Robot Inspector, Programming Mentor - FIRST Robotics

Archery, Video games, Camping, Computers