elsayedm@uwindsor.ca (226)-348-0157

### **PROFESSIONAL SKILLS**

- Skilled in design software such as AutoCAD, Autodesk Inventor, Onshape, Meshlab, Sketchup and Catia V5 through university and work related experience.
- Experienced in MATLab/Simulink, Unity3D, Neo4J, Arduino, PBasic, PSpice, C, C#, JavaScript, Node.js, Mocha and HTML/CSS.
- Proficient in reading and interpreting designs, blueprints and engineering specifications gained through work experience.
- Exceptional **communication** and interpersonal skills gained through work experience with customers.
- Exceptional group work and leadership skills gained through university projects.
- Computer literate with proficiency in a wide variety of applications.
- Skilled in Microsoft Office programs such as Word, Excel and PowerPoint.
- Fast learner and high **analytical thinker** with skills to assess a variety of difficult problems.

### **EDUCATION**

# **Bachelor of Applied Science Mechanical Engineering- Co-op University Of Windsor**, Windsor, ON

August 2015

UWSA Engineering Student Representative

Average: A

Average: -A

# Graduate of Distinction with Honors Galileo Magnet High school, Danville, VA

May 2010

F.I.R.S.T Robotics Outstanding Contribution Award

### **EMPLOYMENT**

# **Brave Control Solutions** Windsor, ON **Controls Specialist | Developer**

Fall 2015 - Present

- Developing accurate customer specifications through visual modeling and simulation using Unity3D.
- Testing PLC software to be used in factory machinery using Unity3D with internally developed software.
- Testing different case scenarios on vehicle routing for FATA parking garage using mocha with Unity3D.
- Developing and filtering models and meshes from point cloud through Meshlab and similar software.
- Assisting Controls Engineers in designing and updating project material through AutoCAD.
- Ensuring all design changes are tracked, logged, and submitted to the Design Supervisor.

# Brave Control Solutions Windsor, ON

Fall 2014

## **Controls COOP Engineer Technologist Student**

- Led Essex Engine's Ford plant in an ECPL safety placard update project on crankshaft lines.
- Assisted the Controls Engineers in designing and updating project material through AutoCAD for Nemak,
   Ford, and Valiant projects.
- Ensured all design changes are tracked, logged, and submitted to the Design Supervisor.

# Valiant Machine & Tool Inc. Windsor, ON

Winter 2014

# **Mechanical Engineering COOP Student**

- Assisted the Design Supervisor in preparation of all processing related material for customer meetings and presentations.
- Sketched, laid out, and detailed drawings to Valiant and customer specifications
- Ensured all design changes are tracked, logged, and submitted to the Design Supervisor.
- Attended and participated in all DFMEA meetings.

# Kautex Textron Windsor, ON

Summer 2013

### **Intern Validation Technician**

 Setup and executed testing according to Testing Lab Work Instructions, Validation Engineer's guidance, customer specifications and OS9000. • Wrote reports on test results for review of the responsible Validation Engineer.

# Larry's Carpentry Windsor, ON Carpenter's Assistant

Summer 2012

- Assisted carpenter by using a wide variety of tools and devices used in carpentry and construction.
- Constructed different projects ranging from building a complete garage, to building whole wooden decks.

### RELEVANT PROJECTS COMPLETED

### **Unibo Self-Balancing Vehicle**

Summer 2015

• **Invented and led project** in the design and build of a one wheeled self-balancing vehicle for Capstone. This project utilized **control theory** in the design of lateral and longitudinal balancing systems for a one wheeled board. Team consisted of 6 members from different faculties to accomplish this task.

### **Energy Control & Power Lockout (ECPL) Project**

Fall 2014

Led Project that included the designing of ECPL Placards for machinery in Essex Engine Ford plant.
 Different machines in the crankshaft lines were analyzed for hazardous energy sources; informative placards about these sources were then made for the purpose of lockout devices and personnel safety.

## **Windsor Engineering Competition (1<sup>st</sup> Place Winner)**

November 2011-2014

• In this competition, engineering students are faced with several real world engineering problems that range from bridge construction, displacement of fluids under certain conditions, to the design and building of a front-end vehicle impact system. Students are then forced to use **engineering concepts** to build devices that would **incorporate solutions**.

### **Engineering Efficiency Projects**

Summer 2013

This project included designing and the construction of several projects such as tank lifter, rolling
forklift, filler pipe shelving, and filler bottle system in the workplace to aid with different testing. These
were devised to provide an efficient and safe work environment for their users.

#### **Globalization Project**

Fall 2011

A product had to be invented that could be applied to a real world market. Kinetic Rechargeable
Heating Insoles were invented in this project. Parts of this project included finding the market,
feasibility, each machining / manufacturing process, bill of material (BOM), floor plan,
business plan, and overall company structure.

### **F.I.R.S.T Robotics Competition**

Winter 2010

 In this project, several components such as gears, motors, servos and several other devices were used to build a remote controlled robot. This robot was programmed to compete in a country wide competition involving different obstacles. A plaque was received for extraordinary work.

### **AFFILIATIONS**

•	ENACTUS Windsor   Research and Development Team Member	2015-Current
•	Student Operated Computing Resources (SOCR)   Member	2013-Current
•	Ontario Society of Professional Engineers (OSPE)   <b>Member</b>	2013-Current
•	American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)	2013-Current
•	Windsor Regional Science, Technology & Engineering Fair   <b>Judge</b>	Winter 2015
•	F.I.R.S.T Robotics   <b>Volunteer</b>	Winter 2014
•	University of Windsor Student Alliance (UWSA)   Engineering Representative	2012-2014
•	University of Windsor Engineering Society (EngSoc)   <b>Board Member</b>	2012-2014
•	ASHRAE   Student Branch Secretary	2013-2014

#### REFERENCES

Available upon request