# Anthony Pasquariello

3A Mechatronics Engineering

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# **EDUCATION**

# **UNIVERSITY OF WATERLOO**

BACHELOR OF APPLIED SCIENCE IN MECHATRONICS ENGINEERING Expected May 2017 | Waterloo, Ontario

#### **SENECA COLLEGE**

MECHANICAL DESIGN TOOLS: SOLIDWORKS April 2015 | Toronto, Ontario

#### ST. ELIZABETH CHS

Grad. June 2012 | Thornhill, Ontario

# COURSEWORK

# Courses taken in both mechanical and electrical engineering include:

Sensors and Instrumentation Numerical Methods Mechanics of Deformable Solids Data Structures and Algorithms Microprocessors and Digital Logic Computer Structures and Real Time Systems

Linear Systems and Signals
Actuators and Power Electronics

# SKILLS

- 2D AutoCAD drafting and 3D modeling using Solidworks and NX
- Understanding of C/C++, and RobotC programming
- Experience with Matlab to perform finite element analysis
- Knowledge of web-based programming including HTML, CSS, and familiar with Javascript
- Familiarity with PLC and VHDL programming through course instruction
- Machine shop experience which includes working with a lathe, mill, and bandsaw
- Excellent written and verbal communication skills acquired in an instructional work setting

# INTERESTS

- Arduino prototyping and programming
- Member of the Waterloo Robotics Racing Team
- Sports: Hockey, Tennis, and Swimming

# **EXPERIENCE**

## **COLIBRI TECHNOLOGIES** | MECHANICAL ENGINEERING INTERN

January 2015 - May 2015 | Toronto, ON

- Performed tolerance analysis on mechanical assemblies ensuring that all parts will mate together with ease.
- Used Solidworks to design and redesign mechanical parts.
- Assisted in the regulatory submission process by writing and performing test cases for requirements.
- Thrived in a fast-paced medical device start-up company.

## PIVOTAL LABS | AGILE TEST ENGINEER

April 2014 - August 2014 | Toronto, ON

- Created automated scripts in Ruby for testing mobile and web applications.
- Excelled in an agile work environment, working alongside software engineers and attending meetings with clients.
- Designed and executed test plans for numerous mobile and web applications ensuring clients received quality products.

#### MULTIMATIC INC | TEST ENGINEER ASSISTANT

January 2013 - April 2013 & September 2013 - December 2013 | Markham, ON

- Designed and built setups for automotive component testing to meet design specifications.
- Acquired a greater attention for details by carefully inspecting tested samples for imperfections.

#### **UHN** | Assistant Research Technician

July 2012 - August 2012 | Toronto, ON

- Completed and presented a cancer research project at Princess Margaret Hospital under the supervision of Dr. Tsao to a panel of distinguished judges.
- Learned and performed many complex biological procedures such as cell culturing, plasmid purification, and DNA/RNA isolation.
- Improved my knowledge of the biological applications in mechatronics by observing robotics used in the laboratory.

# RELEVANT PROJECTS

#### LINE FOLLOWING ROBOT

- Worked as part of a team to build and program a Line Following Robot that used numerous sensors to navigate an obstacle course.
- Hardware testing and debugging was performed on the robot to ensure it was fully operational.

#### MINDSTORM ROBOTICS PROJECT

- Worked with a team to design and build a robot to play Tic-Tac-Toe with humans using sensors and actuators.
- Programmed and debugged the robot to effectively interact with humans using RobotC.

#### **TRUSS DESIGN**

- Designed and built a a bridge to hold more than 400 times its own weight using balsa wood.
- Performed failure analysis on the bridge to predict the failure mode.