Anthony Pasquariello

Mechatronics Engineer
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EDUCATION

UNIVERSITY OF WATERLOO
Bachelor of Applied Science - Honours Mechatronics Engineering (With Distinction)
2017 | Waterloo, Ontario

SENECA COLLEGE
Recognition of Achievement in Mechanical Design Tools: Solidworks
2015 | Toronto, Ontario

COURSEWORK

Courses taken in both mechanical and electrical engineering include:

- Automatic Control Systems
- Power Electronics and Motor Drives
- Mechanics of Deformable Solids
- Numerical Methods
- Sensors and Instrumentation
- Electromechanical Machine Design
- Robotic Manipulators: Kinematics, Dynamics, Control
- Thermodynamics and Heat Transfer
- Digital Control Applications
- Microprocessors and Digital Logic
- Autonomous Mobile Robots
- Multi-Sensor Data Fusion

SKILLS

Software

- Autocad, Solidworks, NX
- Matlab and Simulink
- C/C++, RobotC, and Ruby
- PLC Ladder Logic
- Linux and ROS
- HTML, CSS, and Javascript
- Upverter, Eagle, and PSIM

Hardware

- Machine Shop (Milling Machine, Lathe, Drill Press, Bandsaw)
- Soldering, Oscilloscopes, and Data Acquisition
- FDM, SLA, and SLS 3D Printing
- Material Selection and Part Sourcing

INTERESTS

Tinkering with Electronics, Hockey, Photography, Rock Climbing

EXPERIENCE

AECOM | Automation Engineering Intern
April 2016 – August 2016 | Markham, ON

- Using Autocad designed and created P&ID drawings for various mechanical and electrical systems in a waste water treatment plant.
- Retrofitted old AB PLC layouts with newer GE PLC in an operational water treatment plant improving reliability and efficiency of control system.

THALMIC LABS | Mechanical Engineering Intern
September 2015 – December 2015 | Kitchener, ON

- Designed, fabricated, and built numerous complex and high precision fixtures for testing state-of-the-art prototypes.
- Designed and produced many 3D printed and CNC parts for fixtures and jigs, aiding in both assembly and testing.
- Researched, developed, and implemented new cost saving manufacturing practices resulting in an updated BOM.
- Worked writing the protocols for and executing the buildup of a new prototype.

CONAVI MEDICAL | Mechanical Engineering Intern
January 2015 – May 2015 | Toronto, ON

- Performed GD&T analysis on mechanical assemblies and coordinated with the suppliers to resolve the problem.
- Used Solidworks to design complex mechanical parts applying a revision controlled process.
- Assisted in the regulatory submission process by writing and performing test cases to meet strict FDA industry standards.

PIVOTAL LABS | Agile Test Engineer
April 2014 – August 2014 | Toronto, ON

- Developed and implemented automated scripts in Ruby for testing mobile and web applications to accelerate efficiency of release candidate testing.
- Designed and executed test plans for numerous mobile and web applications ensuring clients received quality products.

MULTIMATIC INC | Test Engineering Intern
January 2013 – April 2013 & September - December 2013 | Markham, ON

- Designed and built fixtures for automotive component testing to meet design specifications including fatigue and ultimate tensile strength testing.
- Analyzed data and provided recommendations after running tests on MTS actuators and an Instron tensile tester using Microsoft Excel.
- Tested and evaluated the performance of different materials during crush tests.

RELEVANT PROJECTS

ENVIRONMENTAL SENSOR NETWORK

- Developed a network of air quality sensors to detect harmful concentrations of gases and dust in urban areas.

MYO CONTROLLED ROBOTIC ARM

- Built a robotic arm and developed a program that allowed the user to control it using a Myo armband.

SEARCH AND RESCUE ROBOT

- Lead mechanical designer in completing an autonomous search and rescue robot.