Anthony Pasquariello

Mechatronics Engineer
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EDUCATION

UNIVERSITY OF WATERLOO
Bachelor of Applied Science in Mechatronics Engineering
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:
Power Electronics and Motor Drives
Digital Control Applications
Autonomous Mobile Robots
Multi-Sensor Data Fusion
Robotic Manipulators: Kinematics, Dynamics, Control
Sensors and Instrumentation
Numerical Methods
Automatic Control Systems
Electromechanical Machine Design
Mechanics of Deformable Solids
Microprocessors and Digital Logic
Actuators and Power Electronics

SKILLS

- Proficient with 2D AutoCAD drafting and 3D modeling using Solidworks and NX
- Linux and ROS
- Experience with Matlab and Simulink to perform finite element analysis
- Experienced with rapid prototyping techniques including FDM, SLA, and SLS
- Skilled in C/C++ and RobotC programming
- Machine shop experience which includes working with a lathe, mill, drill press, and bandsaw
- Knowledge of web-based programming including HTML, CSS, and familiar with Javascript
- Understanding of PLC programming through course instruction
- Hands-on lab experience with soldering, oscilloscopes, and data acquisition
- Excellent written and verbal communication skills acquired in an instructional work setting

EXPERIENCE

AECOM | Automation Engineering Intern
April – August 2016 | Markham, ON
- Using Autocad designed and created P&ID drawings for various systems in a waste water treatment plant.
- Retrofitted old AB PLC layouts with newer GE PLC in an operational water treatment plant.

THALMIC LABS | Mechanical Engineering Intern
September – December 2015 | Kitchener, ON
- Designed, fabricated, and built numerous complex and high precision fixtures for testing components.
- Designed and produced many smaller 3D printed and CNC fixtures, hand tools and jigs for aiding in both assembly and testing purposes.
- 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 – May 2015 | Toronto, ON
- Performed tolerance analysis and reworked mechanical assemblies, ensuring that all parts mate together with ease.
- Used Solidworks to design complex mechanical parts through a revision controlled process.
- Assisted in the regulatory submission process by writing and performing test cases to meet FDA industry standards.

PIVOTAL LABS | Agile Test Engineer
April – August 2014 | Toronto, ON
- Created automated scripts in Ruby for testing mobile and web applications.
- Implemented automation scripts for mobile and desktop websites to enhance 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 – 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 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 dangerous concentrations in urban areas.

SEARCH AND RESCUE ROBOT
- Lead mechanical designer in completing a search and rescue robot.

MYO CONTROLLED ROBOTIC ARM
- Developed a program to allow the Myo gesture control armband to control a robotic arm with an Arduino.