Nicole Rosario

Mechatronics Engineering – University of Waterloo

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SKILLS

Languages

- C++/C
- Python
- Java
- JavaScript
- HTML/CSS
- SQL
- XML

Tools

- Git/GitHub
- Agile (Jira)
- Android Studio
- XCode
- Unity
- Squish
- PLC
- Visual Studio
- SolidWorks
- AutoCAD
- MATLAB
- 3D Printer (resin and filament)
- Laser Cutter /Engraver

Mechanical

- GD&T
- Technical Drawings
- Machining
- Soldering

- Passion for learning new skills and developing solutions
- Strengths: self-learning, time management, organization, communication, problem solving

EDUCATION

University of Waterloo,
Mechatronics Engineering (Co-op)

Candidate for Bachelor of Applied Science

- Received President's Award of Distinction (university admission average above 95%)
- 80%+ average first year
- Working towards an option in biomechanics
- 2017 Orientation Week Leader
- Women in Engineering Outreach Squad Leader

ACTIVITIES & INTERESTS

- Advanced/new technologies (Autonomous vehicles, Hyperloop, AI, clean energy vehicles, etc.)
- App/Web Development
- Robotics
- Rocket Design/Space Exploration

ENGINEERING RELATED EXPERIENCE

Ford Motor Company **May – Aug. 2017**

(Python, Git/GitHub, Agile (Jira), Squish, SQL)

Software Integration Automation Test Engineering Co-op Student (Waterloo)

- Developed and tested automation test cases on the new version of Ford SYNC3
- Utilized a mini bench (Infotainment system) to test my code
- Collaborated with coworkers and another co-op student on how to code certain aspects of the testing and on which software to use for the testing

Waterloop - SpaceX Hyperloop Comp. (Design Team) Sept. 2016 – Present

(Arduino, SolidWorks, Machining, Soldering)

Electromagnetic Sub-team – EC Brakes & Magnetic Wheels (Goose I & II pods)

- Developed, tested, and executed code to test small/full scale hallbach wheels
- Liasoned with Software team to develop and test code for the hallbach wheels
- Designed and manufactured parts for the eddy current braking system and hallbach wheels using SolidWorks and machine shop tools

WATonomous – Autonomous Vehicle (Design Team) **May – Aug. 2017**

Software Team – Object Detection

- Researched different aspects of autonomous vehicles, primarily object detection sensors such as radar and LiDAR

Robotic Claw Machine **Oct. - Dec. 2016**

(RobotC, AutoCAD, Laser Cutting, Machining)

Mechatronics Engineering and Digital Computation - Course Project

- Applied engineering design by identifying constraints/criteria and prototyping
- Designed and implemented software, in RobotC, for the robotic claw machine
- Utilized AutoCAD, laser cutter, and machine tools for design and construction

PROJECTS/HACKATHONS

Wearhacks - Waterloo (36 Hr. Hackathon) **Mar. 2017**

(MYO, Unity, VR, Git/GitHub)

VR Personal Assistant Prototype

- Integrated MYO (a gesture control armband) to control movements in Unity
- Developed different screens (calendar, to-do, reminders, etc.) using Unity

IEEE Hardware Hackathon – UofT (12 Hr. Hackathon) **Feb. 2017**

(Arduino)

Robotic Burglar Alarm System Protoype

- Integrated sensors and other electrical components using Arduino (RFID, transceivers and receivers, ultrasonic sensor)

Personal Portfolio Website (Side Project) **May 2017 - Present**

(HTML/CSS, JavaScript, Google Developer Tools, Git/GitHub)

- Self-taught HTML/CSS and JavaScript using Udemy and Google Developer Tools
- Utilized programming skills to debug the code of my website

Drone (Side Project) **Feb. 2017 - Present**

(Arduino, Soldering)

- Developed embedded software knowledge by researching wireless remote control
- Applied electrical engineering skills to solder electrical connections (motors, electronic speed controllers, power supply board)