NICOLE ROSARIO

Mechatronics Engineering – University of Waterloo

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ENGINEERING EXPERIENCE

Back-End JavaScript Developer (Co-op)
Intrigue Media
📅 Jan. 2018 – Present   📍 Guelph, ON
Node.js, PHP, Git
- Designed, developed, and tested a CSV importer to secure access and prevent error values from reaching the database

Software Integration Automation Test Engineer (Co-op)
Ford Motor Company Canada
📅 May 2017 – Aug. 2017   📍 Waterloo, ON
Python, Git/GitHub, Agile(Jira), SQL, Squish (automation testing tool)
- Developed automation test cases for the new version of Ford SYNC3 (Infotainment System)
- Collaborated with coworkers on development approach and on which software to use for the testing

SpaceX Hyperloop Competition (Design Team)
Waterloop
📅 Fall 2016 – Present   📍 Waterloo, ON
Arduino, SolidWorks, Machining, Soldering
Electromagnetic Sub-team – Eddy Current (EC) Braking System & Magnetic Wheels
Software Sub-team – Website & Embedded Systems
- Developed, tested, and executed code to test small/full scale hallbach wheels
- Designed and manufactured parts for the EC brakes and hallbach wheels using SolidWorks and machine shop tools
- Collaborated with teammates to design the UI/UX for the website

Robotic Claw Machine (Course Project)
Mechatronics Engineering & Digital Computation Courses
📅 Oct. – Dec. 2016   📍 Waterloo, ON
RobotC, C++, AutoCAD, Laser Cutting, Machining
- Applied engineering design by identifying constraints/criteria and prototyping
- Designed and implemented software for the robotic claw machine in RobotC
- Utilized AutoCAD, laser cutter, and machine tools for design and construction

PROJECTS/HACKATHONS

OctoBud (Hackathon – 36 Hour)
QHacks 2018 (Winner for Best Healthcare Hack)
📅 Feb. 2018   📍 Quenn's University
Amazon Alexa, Node.js, EJS, MongoDB
- Developed an Alexa bot to decrease wait times in the ER by collecting patients' info when they arrive to allow nurses to spend their time on more important tasks

MyFriends (Hackathon – 36 Hour)
DeltaHacks 2018 (Winner for Best IoT Voice Control Hack)
📅 Jan. 2018   📍 McMaster University
Amazon Alexa, Node.js
- Developed a social media Alexa skill so friends can share events and invite others through Alexa or SMS

CodeChecker (Hackathon – 36 Hour)
PennApps Winter 2018 (Top 30 of 160+ teams)
📅 Jan. 2018   📍 University of Pennsylvania
Node.js, EJS, MongoDB
- Developed a web app and used the GitHub API to teach people how to better format their code and for employers to check applicants' code

Drone (Side Project)
📅 May 2017 – Present
Arduino, Soldering
- Acquired knowledge of embedded software by developing a wireless remote control
- Applied electrical engineering skills to solder/secure electrical connections

Electric Longboard (Side Project)
📅 Feb. 2018 – Present
Arduino, Soldering
- Made a longboard electric and built a bluetooth remote to control the longboard

SKILLS

Languages

- JavaScript
- Node.js
- Python
- PHP
- C++/C
- HTML/CSS
- Java
- VHDL
- Swift
- Assembly

Stacks/Frameworks

- MEAN Stack
- SQL
- LAMP Stack
- Slim 3.0

Tools

- Git/GitHub
- SolidWorks
- Arduino
- AutoCAD
- Alexa
- 3D Printing
- Android Studio
- Laser Cutting
- XCode
- Soldering
- PLC
- Machining
- Unity
- Technical Drawings
- Squish
- MATLAB

EDUCATION

Mechatronics Engineering, Co-op

University of Waterloo
📅 Sept. 2016 – May 2021

Candidate for Bachelor of Applied Science (BASc)
- Received President's Award of Distinction (university admission average above 95%)
- 80% average first year
- Classes: Data Structures and Algorithms, Microprocessors and Digital Logic

INTERESTS

- Advanced/New Technologies (Autonomous vehicles, Hyperloop, AI, clean energy vehicles, Robotics)
- App/Web Development
- Rocket Design & Space Exploration
- Women in Engineering Outreach Team
- Engineering Orientation Leader
- Sports: Hockey (playing & reffing), Ultimate Frisbee, Golf, Soccer