Hernando Castano

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SKILLS

PROGRAMMING

Experienced in:
Express.js • Java • JavaScript
Node.js • Python
Familiar with:
Android • AngularJS • Arduino
C/C++ • LaTeX• HTML/CSS
MongoDB • Ruby

TOOLS

Experienced in:
Android Studio • Eclipse • Git
Vim
Familiar with:
Atom • VirtualBox • Visual Studio

OPERATING SYSTEMS

Experienced in:
Windows • OS X • Ubuntu
CentOS 6 • CentOS 7

CAD

Familiar with:
AutoCAD • SolidWorks

EDUCATION

UNIVERSITY OF WATERLOO

B.A.Sc in Mechanical Engineering (Candidate)
Expected April 2020 | Waterloo, ON
Cumulative GPA: 3.79

W.L MACKENZIE C.I

Ontario Secondary School Diploma (Honours)
Grad. June 2015 | Toronto, ON

LANGUAGES

Can communicate proficiently in Spanish, both verbally and written.

INTERESTS

Running
Swimming
Mobile Technology
Aviation
Electric Vehicles

WORK EXPERIENCE

UNIVERSITY HEALTH NETWORK | Bioinformatics RA

May 2016 – Aug 2016 | Princess Margaret Genomics Centre

- Developed web applications using the MEAN stack to assist in bioinformatics research.
- Independently developed a system used by labs to share confidential files.
- Deployed and maintained an OpenID Connect server and client application.
- Created a web tool to verify sample identification data for lab technicians prior to running experiements.
- Provided technical support to labs and research teams looking to get web sites hosted.
- Recieved an 'outstanding' review at the end of the work term.

RYERSON RAMS ROBOTICS | Team Member

July 2016 – Sept 2016 | Ryerson University

- Participated in both the Mars Rover and VexU Robotics teams.
- Verified that electronic components were working by writing C programs.
- Researched cost and performance effective solutions for the construction of the robotic arm on the Mars Rover.
- Built prototypes independently and with a team in order to validate the different VexU design options.
- Fixed various electronic and mechanical devices around the shop.

PROJECTS

HANDY DANDY | Electromechanical Project

Feb 2016 - Mar 2016 | First Year Design Project

- Designed a robotic hand capable of performing gestures and lifting objects.
- Led the development of the software used to control the project.
- Independently designed the fingers and palm using SolidWorks.
- Gained experience working with 3D printers, which were used for manufacturing the hand.

GO, GO, MYO ROCKET! | Hackathon Project

Nov 2015 | EngHack

- Created a flight simulator using Unity's 3D game engine.
- Allowed human interfacing using multiple Myo armbands.
- Created scripts using C# in order to control flight aspects and allow for more realistic character movement.

MYO EMG REPLACEMENT | Personal Project

Nov 2015 - Dec 2015 | Deloitte Tech Exchange

- Worked with the Myo armband with the goal of replacing electromyographic machines in a medical setting.
- Analyzed the raw output given by the Myo, converting it into information usable by medical practitioners.
- Using the Myo to perform EMG tests would allow for the replacement of $10,000 machines, as well as improve the test for patients and doctors.