Hernando Castano

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SKILLS

PROGRAMMING

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

TOOLS

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

OPERATING SYSTEMS

Experienced in:
Windows • macOS • Ubuntu
CentOS 6 • CentOS 7 • Kali

CAD

Familiar with:
AutoCAD • SolidWorks

EDUCATION

UNIVERSITY OF WATERLOO

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

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
Robotics
Aviation
Blockchain Technology

WORK EXPERIENCE

ORBCOMM | Embedded Software Developer

Jan 2017 - Apr 2017 | Ottawa, ON

- Wrote and maintaned applications in Lua for satellite terminals.
- Ported applications from legacy hardware to a next generation product, refactoring and fixing issues as necessary.
- Wrote unit tests to validate core functionality, and implemented the use of Jenkins for build and test automation.
- Worked with C to implement a remote firmware upgrade feature using a FRDM-K66F board as an embedded web server.

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.

PROJECTS

RAVENS RACING | Powertrain Team Member

Jan 2017 - Present | Carleton University

- Participated as a member of the Formula SAE team, which designs and develops a formula style race car.
- Tuned the engine's fuel map to produce 10% more power as compared to last year's setup.
- Diagnosed and fixed issues with our dynamometer, ensuring results were accurate and repeatable.
- Manufactured a variety of parts for the car using a lathe, mill, MIG welding, and handtools.

WATERLOOP | Team Member

Sept 2016 – Dec 2016 | University of Waterloo

- Worked with a team of students to prototype a new and sustainable form of transport called the Hyperloop.
- Worked on the mechanical and electrical design for an eddy current braking system.
- Designed basic circuit schematics using Eagle.
- Participated in design reviews for PCB creations and layouts.
- Soldered prototype circuits for a variety of subsystems.

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 manufacturing experience through the use of 3D printers.