

# Nicolás Eduardo Velásquez Saavedra, MSc, CID

## Contact information

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## Profile

Electronic Engineer and Masters in Electronics Engineering with emphasis in digital systems. Passionate for creating electronic products, going through the steps of ideation, component selection depending on the cost/size/battery restrictions, PCB design, high skilled hand soldering for prototypes, embedded programming on C, or embedded Linux. With knowledge of fast prototyping techniques like 3d printing and laser cutting that help the process of testing and improving early stages presentation of the product. I identify myself as an entrepreneur and a maker, and I am always eager to learn new things and make new projects.

## Academic Formation

Master in Science. Electronics Engineering with emphasis on Digital Systems <b>Universidad Javeriana</b>	January 2016 – December 2017 Bogotá D.C. - Colombia
Magister in Electronics and Computer Engineering (unfinished) <b>Universidad de Los Andes</b>	January 2013 – July 2013 Bogotá D.C. - Colombia
Electronic Engineering <b>Universidad de Los Andes</b>	January 2009 – December 2012 Bogotá D.C. - Colombia

## Courses and Certifications

Scrum Fundamentals course and certification <b>ScrumStudy</b>	August 2018 Online webinar and exam
Linux course for basic server managing. (40 hours) <b>Universidad del Valle and Formatic Program</b> <a href="http://formatic.org/">http://formatic.org/</a>	February 2018 Cali - Colombia
Embedded systems for IoT <b>Universidad Javeriana - Intel</b> <a href="https://software.intel.com">https://software.intel.com</a>	November 2015 Bogotá - Colombia
Introduction to IoT <b>Universidad Javeriana - Intel</b> <a href="https://software.intel.com">https://software.intel.com</a>	October 2015 Bogotá - Colombia
IPC's CID (Certified Interconnect Designer-basic) course and certification <b>IPC - Association Connecting Electronics Industries</b> <a href="http://ipc.org">http://ipc.org</a>	October 2013 Medellín - Colombia

## Experience

CTO - Partner <b>Agrum tecnología SAS</b> Agrum is a company that measures and improve the productivity of the agricultural machinery, like tractors and harvesters. In charge of the design, manufacture and programming of the electronic hubs, as well as the Whatsapp Bot used to notify the clients.	Julio 2017 – Present Cali - Colombia
Hardware Design Leader - Partner <b>AR-Smart SAS</b> AR-Smart is an IoT company focused on Smart houses. In charge of the desing of the electronics, embedded software in linux and the enclosure of Living, our smart home hub.	July 2015 – February 2017 Bogotá - Colombia

Developer Engineer - Partner <b>País Emprendedor SAS</b> País emprendedor is a family business that manufactures and distributes cheese. In charge of the machine acquisition, automation of process and development of a traceability process.	September 2013 – June 2015 Bogotá D.C. - Colombia
Active Member <b>Institute of Electrical and Electronics Engineers - IEEE</b> - President of IEEE's student branch. January 2013-July 2013 - President of Circuits and Systems' student chapter. July 2012-December 2012 - Treasurer of IEEE's student branch. January 2012-July 2012 <a href="http://ieee.uniandes.edu.co">http://ieee.uniandes.edu.co</a> <a href="http://www.ieee.org">http://www.ieee.org</a>	June 2010 – December 2014 Bogotá D.C. - Colombia
Active member <b>Robocol group for NASA's Lunabotics Mining Competition 2013</b> In charge of the design and implementation of the Robot's communication and control. <a href="http://robocol.uniandes.edu.co">http://robocol.uniandes.edu.co</a>	August 2012 – August 2013 Bogotá D.C. - Colombia
Active Member <b>Andes University's aerospace project - PUA</b> In charge of the electronic design of telemetry and ignition of the rockets <a href="http://pua.uniandes.edu.co">http://pua.uniandes.edu.co</a>	February 2012 – July 2013 Bogotá D.C. - Colombia
Member of the Microelectronics group (CMUA) and part of the TTDE wiki <b>Andes University's Microelectronic center</b> <a href="http://cmua.uniandes.edu.co">http://cmua.uniandes.edu.co</a> <a href="http://ttde.uniandes.edu.co">http://ttde.uniandes.edu.co</a>	January 2012 – July 2013 Bogotá D.C. - Colombia
Active member <b>Vitesse robotics group</b> Design of robots for following the line and labyrinth competitions <a href="http://ttde.uniandes.edu.co">http://ttde.uniandes.edu.co</a>	February 2012 – July 2013 Bogotá D.C. - Colombia

## Prices and recognitions

2 <sup>nd</sup> place in the Act in Space hackaton promoted by CNES, Airbus and ESA Part of Don't Panic Team, with the project GeoCheck. (2 <sup>nd</sup> place out of 16 participants) Geocheck is a product to reduce falsified medical products commercialization using Block-Chain and GNSS satellite technology to generate tamperproof track and trace tags. <b>Universidad de los Andes</b> <a href="https://actinspace.org/">https://actinspace.org/</a>	May 2018 Bogotá - Colombia
Cum Laude recognition in the completion of the Magister in Electronics Engineering <b>Universidad Javeriana</b>	March 2018 Bogotá - Colombia
Honor mention for the magister's work "Frictionless and distributed indoor location using BLE" <b>Universidad Javeriana</b>	March 2018 Bogotá - Colombia
Academy Excellence in the Magister studies in all 4 semesters of the program <b>Universidad Javeriana</b>	March 2018 Bogotá - Colombia

4<sup>th</sup> place in the NASA's Fourth annual Lunabotics Mining Competition  
Part of ROBOCOL Team. (4<sup>th</sup> place out of 50 participants)

May 2013  
Florida - USA

**NASA-Kennedy Space center visitor complex**

<http://robocol.uniandes.edu.co/>

<https://www.nasa.gov/offices/education/centers/kennedy/technology/nasarmc.html>

1<sup>th</sup> place in ethics competition - IEEE's Regional Branch Reunion

August 2012  
San Juan - Argentina

**IEEE-Institute of Electrical and Electronics Engineers**

## Publications

Design and development of an IoT system prototype for outdoor tracking

July 2017

**Proceedings of the International Conference on Future Networks and Distributed Systems - ICFNDS '17** Cambridge - UK

Main author

<https://dl.acm.org/citation.cfm?doid=3102304.3105575>

IoT system for Human Activity Recognition using BioHarness 3 and Smartphone

July 2017

**Proceedings of the International Conference on Future Networks and Distributed Systems - ICFNDS '17** Cambridge - UK

Co-author

<https://dl.acm.org/citation.cfm?id=3105828>

## Language Comprehension

**Spanish:** Native Language

**English:** High (IELTS:7/9)

**Japanese:** Basic in speech and understanding

## Skills

**Programming languages and OS:** C, Python, L<sup>A</sup>T<sub>E</sub>X. Windows, Ubuntu (Linux).

**Software:** Altium Designer, AtmelStudio, Autodesk Inventor, MatLab-Simulink, Eagle PCB, KiCAD, Adobe Photoshop, Adobe Illustrator

## Interested in

- Fast prototyping techniques of electronics products
- Design, manufacture and assembly of PCBs
- Robotics
- Embedded Systems
- Products Design