José Ogalde

Currículum Vitae

José Alberto Ogalde Ortiz
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Personal Statement

Persistence is what has brought me closer to science and technology in spite of living in a small town from the Limarí Valley. I have a MScEng degree and a professional degree in Electrical Engineering from the University of Chile. A lot of my experience comes from the SUCHAI project: the first nanosatellite developed in Chile. I have specialized in the development of low level hardware and software for embedded systems and experiments. My technical interests are embedded systems, electronics, system software, instruments design, physics and astronomy. I believe that challenges help us to grow personally and let us contribute to build a better society.

Education

2016 - 2019 **Master of Science in Engineering, mention in Electrical Engineering**, *Thesis: "Design and Implementation of an out-of-equilibrium electronic experiment onboard of a low earth orbit nanosatellite"* , University of Chile.

2014 - 2019 **Professional Degree in Electrical Engineering**, *University of Chile*.

2013 - 2014 **Minor in Computer Sciences**, *University of Chile*, Santiago, Chile.

2010 - 2014 **B Sc. in Electrical Engineering**, *University of Chile*.

Work Experience

Atacama Large Millimeter/submillimeter Array (ALMA)

Nov 2019- Present **Electronic Engineer** of the Array Maintenance Group (AMG) working in the Correlator and BackEnd sub-systems mainly.

Advanced Mining Technology Center (AMTC)

Jan 2019 - Apr 2019 **Developer** Simulation of how the copper concentrate mixes in a stock pile of BHP Mines (Computer Fluid Dynamics and particle simulations).

MicroMundo Chile SPA

Oct 2018 - 2019 Abril **Developer** Building STEM activities for primary and secondary school students such as: 3D printer-made microscope, Arduino-based robotic cars and an image acquisition platform using a Raspberry Pi camera system.

Spatial Planetary Exploration Laboratory (SPEL)

2014 - 2019 **Thesis project:** The objective was to build an experiment inside the SUCHAI Cubesat to study the Langevin models of a RC circuit when driven to an out-of-equilibrium state. Satellite operations, processing telemetry and thermo-vacuum tests were also part of the thesis project. `http://spel.ing.uchile.cl/`

Radio Astronomical Instrumentation Group (RAIG)

2013 **Research Assistant** Design of a 10 GHz directional coupler in microstrip for the Millimeter-Wave Laboratory.

University of Chile: Teacher Assistance Experience

2011-2018 Experimental Methods (2017-2018), Digital Systems (2016-2018), Microwaves (2017), Advanced Digital Communications (2016-2017), Awareness of Architecture in Programming (2017), Applied Electromagnetism (2013-2016), Computer Architecture (2014-2015), Awareness of Architecture in Programming (2017), Introduction to Engineering I y II (2011-2012).

Computational Skills

Languages C, Java, Python, Matlab, LaTeX.

OS Linux, Debian (mostly Ubuntu), Microsoft Windows, Mac OS.

Scientific Matlab/Simulink, C, Python.

Electrical Arduino IDE, Raspberry Pi, Eagle, MPLAB, Vivado and CAD in general.

Others `git`, GitHub, BitBucket, Google Drive, Jira,VirtualBox.

Languages

English Written, Listening: Advanced, Speaking: Intermediate.

Spanish Native.

Personal Skills and Qualities

Oral Good communication skills gained through experience. Capable of working, keep conversations and do video conferences in English and Spanish.

Organization Good group management and self taught capacity gained through my experience working with multidisciplinary groups of people.

Honours and awards

2020 Awarded by the national Institute of Engineers for the best scientific project in the country.

2019 Graduate of Master's program with maximum distinction.

2010 and 2015 Outstanding student recognized by University of Chile.

List of Publications

1.- Ogalde Ortiz, Jose and Díaz-Peña, Joaquín and Azurdia-Meza, Cesar and Gonzalez, J and Ehijo, A and Prapinmongkolkam, Prasit. (2015). Device-to-Device Communication for the 5G era: a Survey.