José Ogalde

Curriculum 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 being grown up in a small town from the north of Chile. I have a M.Sc.Eng. degree and a professional degree in Electrical Engineering from the University of Chile. A lot of my experience comes from working to develop the first nanosatellite in Chile and working as an electronic engineer of the ALMA telescope. I have specialized in digital systems for instruments and technology development and now I am looking to open my field and learn about astronomy/physics. My technical skills involve electronics, embedded systems, system software, space technology and radio-astronomy. I believe that challenges help us to grow stronger 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*.

Personal information

Birth date 19th February 1992.

Civil status Single.

Work Experience

Atacama Large Millimeter/submillimeter Array (ALMA)

Nov 2019- Present **Electronic Engineer** Maintenance support for operations of the ALMA telescope, specialized in the Baseline Correlator (12m x 64 antennas), the ACA Correlator (7m x 12 & 12m x 4 antennas), and for the BackEnd systems (Central LO and Digital Transmission System of the antennas).

Spatial Planetary Exploration Laboratory (SPEL, University of Chile)

2014 - 2019 **M.Sc.Eng thesis project:** Build an experiment inside a Cubesat to study the statistical properties for the power fluctuations of a dissipative electronic system in a low earth orbit environment, specifically when driven to an out-of-equilibrium state with an Orstein-Ulhenbeck forcing (see thesis here and Cubesat website, founded by FONDECYT 1151476).

Radio Astronomical Instrumentation Group (RAIG, University of Chile)

2013, 2016, 2017 **Student projects** Working as student and teacher assistant for projects in Electromagnetic Waves, Microwaves and Antenna Theory courses (see RAIG website).

Teacher Assistance Experience (University of Chile)

2011-2018 Experimental Methods, Digital Systems, Microwaves , Advanced Digital Communications, Awareness of Architecture in Programming, Applied Electromagnetism, Computer Architecture, Awareness of Architecture in Programming, Introduction to Engineering I y II (University of Chile).

Computer Skills

Languages Python, C, Java, bash, MATLAB, LaTeX.

OS Linux (Ubuntu*, Debian, RHE), Microsoft Windows.

Scientific Python, CASA, MATLAB/Simulink.

Tools Vivado, PetaLinux, FreeRTOS, Raspberry Pi, Zynq, Microblaze, Eagle, MPLAB.

Others git, GitHub, Atlassian Products (BitBucket, Jira, Confluence), VirtualBox, Google Products.

Languages

English Proficient level to write formal documents and sustain formal meetings.

Spanish Native.

Personal Skills and Qualities

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

Organization Good group management and self taught capacity gained through experience working in challenging scientific projects.

Honours and awards

2020 Ramón Salas Edwards prize awarded by the national Institute of Engineers of Chile for SUCHAI Cubesat project as the best scientific project of the year.

2019 Graduate of Master's program with maximum distinction.

2010, 2015 Outstanding student recognized by University of Chile.

List of Publications

1.- Ogalde, J., Falcón, C., Díaz, M. Injected power fluctuations for a non-equilibrium electronic disspative system in space

2.- Ogalde, J., Dıaz, J., Azurdia-Meza, C., Gonzalez, J., Ehijo, A., & Prapinmongkolkam, P. Device-to-Device Communication for the 5G era: a Survey.

Referees

Mr. Alejandro Sáez
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Digital Transmission System
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*User since 2012.