Christian Jonathan Saiz

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Electrical Engineer and Electromechanical technician with training and experience in multiple disciplines.

Fast learner, curious, detailed, responsible and self-motivated person looking for new opportunities to grow professionally, acquiring knowledge and skills. Willing to start a Master's in an Electrical Engineering related discipline.

WORK EXPERIENCE

National Oceanic and Atmospheric Administration – University of Miami's cooperative institute (CIMAS), Miami, FL— *Electrical Engineer*

JULY 2019 - PRESENT

Design, maintenance, operation and troubleshooting of oceanographic and atmospheric instrumentation, including data acquisition systems such as Expendable Bathythermographs (XBT), SeaGliders Autonomous Underwater Vehicles, CTD-ADCP, PIES, salinometers and radiometers at the Atlantic Oceanographic and Meteorological Laboratory (AOML).

Elected as the CIMAS-AOML liaison in August 2021.

Edenor S.A., Buenos Aires, Argentina —*Medium Voltage Network Analyst*

APRIL 2013 - JUNE 2019

Project planning and assessment, work coordination and control of Electric Power Distribution networks.

Fault and reliability index analysis, reports, network optimization (including geographical, schematics, stages, equipment and budget), annual investment plan, coordination of works between multiple divisions (such as High Voltage Substations, Low Voltage, Remote Monitoring and Control, and Works Departments) and presentations for company managers and city mayors.

KSB Compañía Sudamericana de Bombas, Buenos Aires, Argentina — *Sales technician (part-time)*

MARCH 2012 - MARCH 2013

Quotation, pump and motor calculations, and advice to customers for the Building and Firefighting department (air conditioning, rainwater and fire fighting pumps according to NFPA and UL FM).

SKILLS

Electrical circuit analysis (DC, AC single/three-phase, steady and transient analysis).

Electrical materials, instrumentation and measurements.

Electric machines (transformers and motors – DC/AC).

Signal analysis, digital and analog electronics and power electronics.

Electromechanical systems, power systems (generation, transmission and distribution).

Electrical protections and safety devices.

Control systems and PLC.

Automation relays, pneumatics, electro-pneumatics.

Python, C++, Arduino/Atmega microcontrolers, Unix (basic).

FAA small UAV license.

PCB design, assembly and testing.

Function generator, digital multimeter, and oscilloscope operation.

EDUCATION

Universidad Tecnológica Nacional, Buenos Aires, Argentina— *Electrical Engineer – GPA 3.6/4.0*

MARCH 2012 - FEBRUARY 2018

Awarded with the highest overall grade in Electrical Engineering 2018 graduation.

Instituto La Salle Florida, Buenos Aires, Argentina— *Electromechanical technician – Grade 7.53/10.00*

MARCH 2005 - FEBRUARY 2008

PROJECTS

GSM transceiver — *Remote radiometer data acquisition system*

Solar powered data acquisition system with a GSM transceiver (Arduino MKR1400) to upload data from a long and short-wave Eppley radiometer (PSP and PIR) to a NOAA FTP server. Hardware PCB design (KiCad) and firmware (Arduino/C++).

World Map GUI — *GPS, Bathymetry and SST interactive map software*

Interactive map programmed in Python for use in research cruises and mission planning. Includes GPS-serial data, distance to specified targets, and selected points of interest, different layers can be selected such as Bathymetry and Sea Surface Temperature retrieved online.

XBT Environmental Assessment — Paper in review

Expendable Bathythermograph (XBT) environmental assessment paper for NOAA addressing the environmental impact of global deployments.

(See more hardware/software projects on my GitHub portfolio)

WEBSITES

https://www.linkedin.com/in/christian-jonathan-saiz-86845749/

https://github.com/cjsaiz89

TRAINING

Python programming (Linkedin learning), ECE118-E Introduction to programming C++/Unix -grade: 99.4 - (University of Miami), UAV image processing (I2R-NASA), PSS Sincal Network optimization and planning (Siemens Argentina), Electrical Networks and Equipment (Schneider Electric Argentina), Medium Voltage Electrical System Protections (ADEERA Argentina), MV and LV overhead connectors and joints (Edenor S.A.), Electrical regulations and Energy market (UTN Argentina), Leadership program (Universidad Torcuato Di Tella Argentina).

SOFTWARE SKILLS

Microsoft Office, AutoCAD 2D, PSS Sincal, KiCAD, MS Visual Studio, WaveForms, Matlab, SolidWorks 3D, Linux OS, Arduino IDE, Putty, WinSCP, Telvent DMS, SAP.

AWARDS

Highest Overall Grade
Electrical engineering graduation 2018 – Universidad Tecnológica Nacional.

Certificate of recognition
Hurricane SeaGlider operations 2020 – NOAA.

LANGUAGES

English: advanced/fluent
Spanish: native

HOBBIES & INTERESTS

Self-taught piano player.

Going to the gym and running.

Reading engineering books and taking courses.

Reading science books and magazines.

Learning programming

Outdoor activities