Morelia, Michoacán

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Mechatronic Engineer

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Oscar-Godines

EDUCATION

Technological Institute of Morelia

BACHELOR OF MECHATRONICS ENGINEERING

Morelia, Michoacán Aug/2017 - Jan/2022

• Bachelor's thesis: "Solar radio emissions: Instrumentation and observations using a long wavelength antenna and an e-CALLISTO solar radio spectrometer".

SMAW Practical Welding Course, Academy of Mechanical 2018

Engineering and Mechatronics of the ITM

Morelia, Michoacán

School of Applied Mathematics PDE and Applications, 2019

Mesoamerican Centre of Theoretical Physics (MCTP).

Morelia, Michoacán

 $\mathbf{1}^{st}$ Workshop of the National Space Weather Laboratory: Data

2020 **analysis and instrumentation**, National Space Weather Laboratory (LANCE).

Online

PROFESSIONAL EXPERIENCE

R&D Driving Functions Algorithms Engineer

Querétaro, Querétaro

CONTINETAL AUTOMOTIVE

Jan/2024 - Present

Full time

- Design of environments for data collection and validation.
- Development of algorithms for radar signal processing.

R&D Algorithms Test Automation Engineer

Querétaro, Querétaro Jun/2022 - Jan/2024

CONTINETAL AUTOMOTIVE

Full time

I led the automation strategy of the testing processes (simulation and validation) of all automotive projects. Continuous testing usign Jenkins pipelines.

Development of functions for driving assistance, autonomous driving and CD/CI development.

- Programmer in the Advanced Driver Assistance Systems (ADAS).
- Responsible for writing, modifying and updating scripts to automate tests for feature validation in AM (Autonomous Mobility).
- Analyze customer requirements to generate test cases that validate these agreements and provide reports with statistical information about performance.

Callisto Spectrometer Data Manager

Morelia, Michoacán Feb/2022 - Jun/2022

NATIONAL AUTONOMOUS UNIVERSITY OF MEXICO

Temporary contract

- Analysis of dynamic spectra obtained from solar radio signals.
- Development of an automatic system for the detection of solar radio bursts, using Artificial Vision and Machine Learning.
- Implementation of an early warning system for observed events (notification by mail) and sending data to the global server using FTP.

Software Developer / Devops Engineer

REMOTE

Morelia, Michoacán Mar/2020 - Sep/2020

Independent work

- Development of databases and web pages for offices (Grupo Juridico Integral and CrediExpress).
- Software design for customer and payment management.
- Server configuration to host the applications (Devops activities)

ONORS

Recognition of the Best Graduates in Engineering of the Country 2022 **2021,** XLIX National Engineering Conference, *UNAM / ANFEI*.

Mexico city, Mexico

 $\mathbf{1}^{st}$ National Place in Physics, $\mathbf{8}^{th}$ Basic Sciences Contest, ANFEI. 2021

San Nicolás de los Garza, Nuevo León San Nicolás de los Garza, Nuevo León

2020

2021

 2^{nd} Place Global National, 8^{th} Basic Sciences Contest, ANFEI. 2^{nd} Place Global National, 7^{th} Basic Sciences Contest, ANFEI.

English • Advanced (C1) Spanish • Native

ABOUT ME

Engineer and software geek

SKILLS

Pvthon

Automation (Jenkins - Airflow)

C

JavaScript

SQL

JIRA

LaTeX

MATLAB

PLCs

Linux

Excel

Solid Works

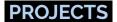
Mathematical Modeling

Problem solving

Communication-Teamwork

+500 h

Morelia, Michoacán



Radio-observations with the CALLISTO Spectrometer

INSTITUTE OF GEOPHYSICS OF THE UNAM

Morelia, Michoacán Aug/2021 - Feb/2022

Thesis main project.

- Installation and testing of the CALLISTO receiver and an LWA antenna, with a quadrature and nonquadrature power coupler.
- Signal analysis to obtain dynamic spectra (Wavelet and Fourier).
- Development of computer programs in different languages for data analysis.
- Integration to the e-CALLISTO Network; to share the observations with the main server in Zurich.

Radio Jove Project

Morelia, Michoacán

NATIONAL SPACE WEATHER LABORATORY

Feb/2021 - Present

NASA educational project, dedicated to the study of radio emissions from Jupiter and the Sun. Open to students and professionals.

- Installation of the dipole and the receiver.
- Analysis of the data obtained.

NATIONAL CONFERENCES

 ${f 15}^{th}$ National Congress of Science, Technology and Innovation

Michoacán

2020

I had the opportunity to participate with the presentation: "Determination of the temporal variation of the Interplanetary Scintillation Index for the radio source 3C48".

XXV Summer of Scientific and Technological Research of the Pacific

Nayarit

VOLUNTEERING

Vice President of the Morelia Youth Scientific Society

Morelia, Michoacán Nov/2020 - Nov/2021

Non-profit association, which guides young people in the path of science and technology. In addition, it organizes various events, such as conferences, forums, contests, etc.