Oswaldo Arias

Aeronautic Engineer and Programmer

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LANGUAGES

English
B2

Spanish
Native

CERTIFICATIONS

LabVIEW Core I & II
LabVIEW

Introduction to worldskills Mobile Robotics Platform
Studica & worldskills

Responsive Web design
freeCodeCamp

Ongoing

Scientific Computing with Python
freeCodeCamp

Ongoing

Back End Development and APIs
freeCodeCamp

Ongoing

As a web server developer, I possess extensive experience in GNU/Linux, self-hosting, and microcontrollers dating back to 2014. I have successfully completed various home automation projects that involved integrating microcontrollers. My programming expertise encompasses languages such as Python, Julia, Rust, Go, C, and MATLAB. Furthermore, I am a native Spanish speaker, and I have a professional-level command of English. I am also proficient in using Microsoft Office tools.

EDUCATION

Centro de Bachillerato Tecnológico industrial y de servicios No. 148
Programmer Technician

(August 2016 - July 2019)

Instituto Politécnico Nacional
Aeronautic Engineer

(August 2019 - Present)

PROJECTS

Automatic Meteorological Station
Researcher

(November 2022 - Present)

Research, development, implementation, and analysis of an automated meteorological observation system.

`Aviation` `IoT` `Embedded Systems` `Meteorology`

Rocketry Electronics
Phoenix Rocketry Advisor

(April 2021 - November 2021)

Provide guidance on the selection and handling of components for the construction of an experimental rocket.

`Rocketry` `Aeronautics` `Avionics` `Electronics`

Mobile Robotics
worldskills expert

(May 2018 - December 2019)

Application and implementation of mobile robotics systems in preparation for the WorldSkills Kazan 2019 competition. Work was done using the LabVIEW system, with components from Studica and NI.

`Robotics` `International` `Mexico`

3D Design and Printing
Instructor

(June 2019 - July 2019)

Teaching 3D design and printing to high school students, using CAD tools such as Autodesk Inventor and Solidworks.

`Education` `CAD` `3D Printing`

School Robotics
Instructor

(March 2018 - June 2018)

Teaching programming logic and applying the fundamentals to physical environments through the implementation of a line-following robot.

`Teaching` `Robotics`

INTERESTS

Aviation

Telecommunications

Automation

Embedded Systems

Prototyping   Meteorology

Hardware

Portable tech   RF   LoRa

Radio communications

Software

Peer to peer   Remote Systems

Proccess Automation

Machine Learning

Artificial Intelligence   CAE

Design

Web   Mobile   CLI

Administration

ABAP   Lean Manufacturing

Six Sigma

Quality Management

SKILLS

Software Developer
Advanced

Rust   Go   Python   Julia   MATLAB   Jupyter Notebook

JavaScript   Next.js   Java   C++

Systems Administration
Intermediate

Linux   Remote   Docker   Hosting

Robotics and Automatization
Advanced

Arduino   LabVIEW   IoT   Raspberry Pi   Fritzing   KiCAD

Avionics and Embeded Systems
Intermediate

Embedded Systems   Microcontrollers

CAD
Intermediate

CAD   3D Printing   AutoDesk Inventor   Solidworks

SOFT SKILLS

Project Management
Intermediate

Agile   Kanban

Leadership
Intermediate

Teamwork   Communication

Teaching
Intermediate

Mathematics   Coding

Accounting
Advanced

Excel   CSV   XML

Translation
Intermediate

Technical Materials

Technical writing
Intermediate

LaTeX   Typst