

Francisco Javier Moreno Vazquez

MECHATRONICS ENGINEER - 23 YEARS OLD

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Summary

Passionate Mechatronics Engineering recent graduate dedicated to continuous growth through research and collaborative learning. Experienced in tackling diverse challenges and eager to contribute to dynamic teams.

Education

DICIS UG (Engineering Division Campus Irapuato Salamanca University of Guanajuato)

Salamanca, Guanajuato, Mexico

B.S. IN MECHATRONICS ENGINEERING

Aug. 2018 - Dec. 2023

Skills

Programming	Numerical Computing (Matlab, Scilab, Octave), Python, C/C++, VHDL, Web (HTML5, CSS3, JS), SQL
Tools/Technologies	MS Office, Git, Github, Simulink, AWS (Training in process), Linux (Ubuntu)
Data Analysis	Pandas, Numpy, Scipy, Matplotlib, Seaborn, Scikit-learn, Jupyter
Engineering	CAD (Inventor), PLC (Siemens), CNC (Fanuc), Embedded Systems (Proteus, Multisim, Arduino, XC8)
Languages	Spanish (Native), English (Professional), Japanese (Conversational), Russian (Basic)

Work Experience

CINERGIA UG

Salamanca, Mexico

INTERNSHIP

Aug. 2023 - Dec. 2023

- Development of a biometric data collection project for the company Soluciones EVOLVE Energy del Bajío S.A. de C.V.

Extracurricular Activity

Research Scholarship

Salamanca, Mexico

PROJECT *Modeling Aerial Robots with Open Source Simulation Tools* AT DICIS UG

2023

- Design of a quadrotor model in MuJoCo, and implementation of a controller in Python.

ICAppLEC

Yuriria, Mexico

PROJECT *Enhancing PID Controller Performance in RLC Circuits through Metaheuristic Optimization* AT DEM UG

2023

- Improving the tuning of a PID control through bio-inspired algorithms.

CIENERGIA

Salamanca, Mexico

PROJECT *Implementation of modulator for current source inverter* AT DICIS UG

2023

- Implementation of a FPGA-based modulator using SPWM for a three-phase current source inverter.

XXVIII Summer of Science UG

Salamanca, Mexico

PROJECT *Image understanding using convolutional neural networks for autonomous vehicle navigation* AT DICIS UG

2023

- Development of a point cloud processing script for an Intel D415 camera enabling the extraction of the environment's ground.

XXVII Summer of Science UG

Salamanca, Mexico

PROJECT *Implementation of an IoT control system based on Edge Computing* AT DICIS UG

2022

- Implementation of an IoT system using an ESP32 with Raspberry Pi, incorporating HTTPS protocol.

XXV Summer of Science UG

Salamanca, Mexico

PROJECT *Augmentation experience study focused on mobile robots* AT DICIS UG

2019

- Management of Linux bash commands and the Robot Operating System (ROS) for the implementation in an Autominy.

XXIV Summer of Science UG

Yuriria, Mexico

PROJECT *Encryption through Orthogonal Polynomials* AT DEM UG

2018

- Acquisition and practice of knowledge in areas such as linear algebra and matrix computing with Matlab.

Abroad Experience

2023 **PIIT GTO**, Awarded by JuventudEsGto to strengthen power skills in young talents.

Tallin, Estonia

2017 **Academic Performance**, Awarded by EDUCAFIN for a notorious academic performance.

Toronto, Canada

2016 **International exchange**, Agreement of CNMS UG and KOSEN's from NUT for a short abroad experience.

Nagaoka, Japan