



# Francisco Javier Moreno Vázquez

MECHATRONICS ENGINEER

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## Summary

As a Mechatronics Engineering student, I am passionate about expanding my knowledge through research and embracing challenges to grow personally and professionally. My participation in extracurricular activities such as summer research programs has equipped me with valuable problem-solving, teamwork, and communication skills. I enjoy sharing my knowledge with others and believe in the importance of collaborative learning. I am eager to contribute my enthusiasm and expertise to a dynamic and innovative team.

## Education

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

*Salamanca, Guanajuato, Mexico*

B.S. IN MECHATRONICS ENGINEERING

*Aug. 2018 - Dec. 2023*

- Member of the SPIE Student Chapter participating in outreach activities.
- Member of the IEEE Student Chapter participating in the IEEEExtreme.

## Skills

<b>Microcontrollers</b>	PIC, AVR, ARM, FPGA
<b>Industrial Automation</b>	PLC Siemens, CNC Fanuc
<b>Programming Languages</b>	Numerical Computing (Matlab, Scilab, Octave), Python, C/C++, VHDL
	Spanish, English, Japanese

## Extracurricular Activity

### XXVIII Summer of Science UG

*Salamanca, Mexico*

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

*Jun. - Aug. 2023*

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

### Professional Social Service

*Salamanca, Mexico*

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

*Feb. - Aug. 2023*

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

### XXVII Summer of Science UG

*Salamanca, Mexico*

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

*Jun. - Aug. 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

*Jun. - Aug. 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

*Jun. - Aug. 2018*

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

## Time Availability

**Availability,** Available to start from August/September 2023, with a preference for remote/hybrid work arrangements. However, I am also comfortable with in-person work if necessary. Please feel free to reach out to me to discuss further.