Francisco Javier
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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 Student Chapters such as SPIE and IEEE participating in the IEEEXtreme and in outreach activities.

Skills

Programming	Numerical Computing (Matlab, Scilab, Octave), Python, C/C++, VHDL, HTML5, CSS3, JS
Languages	Spanish (Native), English (B1), Japanese (Conversational), Russian (Basic)

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,** Award granted by JuventudEsGto to strengthen power skills in young talents.	*Tallin, Estonia*
2017	**Academic Performance,** Award granted by EDUCAFIN for a notorious academic performance.	*Toronto, Canada*
2016	**International exchange,** Agreement of CNMS UG and KOSEN's from NUT for a 2 week abroad experience.	*Nagaoka, Japan*

Seeking a part-time remote internship opportunity to gain practical experience while pursuing my Master's degree, starting in January 2023. Open to discussing flexible work arrangements to accommodate academic commitments. Please feel free to contact me for further details.