ANDRES FELIPE RIVERA

MECHATRONIC ENGINEERING / AUTOMATION AND INTELLIGENT SYSTEMS

I am a mechatronic engineer with a double French engineering degree in Automation and Intelligent Systems. I like continuous learning and facing new challenges.

I have knowledge of schemes, closed-loop control and modeling of dynamic systems, route planning of autonomous systems, as well as the use of modeling and simulation programs for dynamic systems.

I am excited to apply my knowledge and skills in projects related to automation and control systems, in a dynamic environment that allows me to continue growing as a mechatronic engineer committed to innovation and excellence.

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STUDIES

2021 - 2023 **GRENOBLE INP ENSE3 | GRENOBLE FRANCE**
French Engineer in Automation and Intelligent Systems BAC +5 Master

2016- 2023 **NATIONAL UNIVERSITY OF COLOMBIA | BOGOTÁ**
Mechatronic Engineer

EXPERIENCE

DIMUTO - Digitalization Engineer
(October 2024 - Present)
Implement solutions and support for a platform in C# and .NET, projects of detection and classification of objects for the digitization of fruit cartons with computer vision and AI techniques

SIEMENS- COLOMBIA - TRAINEE ADMINISTRATIVE
(October 2023 - October 2024)
Development of control processes (IHM and RTU) for electrical systems, programming of protection relays, communications for industrial equipment (LAN/WAN) and development of FAT tests for electrical substation projects

FRAMATOME FRANCE - RESEARCH AND DEVELOPMENT ENGINEER
(February 2023 - August 2023)
Development of a Digital twin model of an industrial thermodynamic process that allows testing and training for the operators of this process. My practical experience included developing digital models through classical methods and data analysis to implement the model in Simulink. I also had the opportunity to solve technical validation challenges with the actual process.

POLYTECHNICAL UNIVERSITY OF CATALUNYA BARCELONA - RESEARCH INTERN (June - August 2022)
I improved the robustness of a route planning algorithm for autonomous vehicles, through predictive control. Analyze and study vehicle dynamics and control for the improvement of this route tracking algorithm.

SKILLS AND COURSES

- MATLAB-Simulink
- Python
- Office-LaTeX
- PLC-HMI-SCADA
- ROS, ROS2
- TensorFlow
- C# C++

Specialized Program- TensorFlow 2 for Deep Learning - Coursera

Specialized program - Self - Driving cars- Coursera

Code Foundation for ROS - The Construct

Multi-Object Tracking for Automotive Systems - EDX

Machine Dynamics with MATLAB - EDX

LANGUAGES

Spanish
native
French
C1 level
English
B2 level

ACHIEVEMENTS AND PARTICIPATIONS

- Double Degree Exchange in France
- National Under 7 Chess Champion
- Best Tender for CAD Modeling (UNAL)