

Emmanuel Alejandro Larralde Ortiz

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PROFILE

Mechatronics Engineer of Instituto Politécnico Nacional and Hardware Engineer at Intel where I have worked with people from many regions of the world. I like challenges, algorithms, digital electronics, and robotics.

WORK EXPERIENCE

Hardware Engineer	Intel Corporation	(March 2023 – today)
- Design Verification of a Novel Branch Prediction Unit of an incoming CPU core.		
Technical Graduate Intern	Intel Corporation	(January 2022 – January 2023)
- Design Verification of the Quick Assist Technology of Intel Xeon Granite Rapids D.		
Robotics Software Engineer Intern	CIMAT	(August 2022 – February 2023)
- Development of autonomous driving software stacks for quadcopters and mobile robots.		

SKILLS

TECHNICAL SKILLS

PROGRAMMING LANGUAGES

Python
C/C++

HARDWARE DESCRIPTION LANGUAGES

Verilog/System Verilog
VHDL

TECHNOLOGIES

Productivity: Shell scripting, Git & GitHub, Jenkins, Docker.

Embedded Systems: Microcontrollers, FPGAs, SBCs, embedded Linux.

Robotics: ROS, Gazebo Sim, Jetson Platforms.

Scientific: Scientific python, MATLAB, wolfram alpha, LaTeX.

SOFT SKILLS

Self-taught, Responsibility, Openness to feedback and Teamwork.

MAJOR PROJECTS

DonkieTown	2022
A low-cost experimental platform for research on Automated and Connected Vehicles.	
- GitHub repository: https://github.com/L4rralde/DonkieTown	
- IEEE paper: https://latamt.ieee9.org/index.php/transactions/article/view/7756	
PPA	2016 – 2019
An assistance device for caregivers of people with dementia.	
- Samsung Awarded this project and invited the team to the Consumer Electronics Show in 2018.	

EDUCATION

UPIITA-IPN

Bachelor of Engineering in Mechatronics Engineering.

August 2017 – December 2022
GPA 94/100

Centro de Investigación en Computación

Domestic exchange program. Graduate courses in Computer Science.

September 2020 – June 2021
GPA 100/100

CECyT 18 “Zacatecas”

Digital Systems Technician.

August 2014 – June 2017
GPA 96/100

AWARDS

First place at Mexican Tournament of Robotics (2023).

Finalist candidate for the International Physics Olympiad (2017).

First place at Samsung’s Solve for Tomorrow contest (2018).

Silver Medal in the National Physics Olympiad (2016).