Emmanuel A. 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. I also author one IEEE paper.

WORK EXPERIENCE

Hardware Engineer   **Intel Corporation**   **(February 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 Engineering Intern   **CIMAT**   **(August 2022 – February 2023)**
- Development of autonomous driving software stacks for quadcopters and mobile robots.

SKILLS

TECHNICAL SKILLS   ### TECHNOLOGIES

PROGRAMMING LANGUAGES   **HARDWARE DESCRIPTION LANGUAGES**

Python	Verilog/System Verilog
C/C++	VHDL

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.ieeer9.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   August 2017 – December 2022
Bachelor of Engineering in Mechatronics Engineering.   GPA 94/100

Centro de Investigación en Computación   September 2020 – June 2021
Domestic exchange program. Graduate courses in Computer Science.   GPA 100/100

CECyT 18 "Zacatecas"   August 2014 – June 2017
Digital Systems Technician.   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).