

Carlos Angel Patricio Martinez

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Professional Experience

Systems Validation Engineer

Intel Labs

Zapopan, Jal, Mexico

Feb 2023 – Current

- Contributed to the development of [Hala Point](#), the world's largest neuromorphic computing system, driving innovation in artificial intelligence hardware.
- Designed, developed, and executed Bash/Python scripts for functional validation of Loihi chips and the Hala system, reducing hardware debugging time by 28% and ensuring full system functionality within project deadlines.
- Streamlined development operations for the Intel Neuromorphic Research Community by implementing a 10Gb LAN, improving program load times by 30% and boosting team productivity.
- Enhanced system reliability by debugging and enabling new systems for internal and external clients, reducing downtime by 42% and improving overall operational efficiency.

Electrical Validation Engineer

Intel Corporation

Zapopan, Jal, Mexico

Aug 2021 - Jan 2023

- Led the development of a Python-based real-time tracking GUI, reducing lost items by 65%, which streamlined asset management and increased operational efficiency.
- Assisted in the readiness, testing, and debugging of client products' critical interfaces such as USB3, SATA, PCIe, and DMI.

Electrical Validation Engineer

Intel Corporation

Colima, Col, Mexico

Feb 2020 - Jun 2020

- Created a data gateway using a Raspberry Pi was developed, enabling seamless data exchange between Siemens LOGO! PLC and higher-level systems using Modbus TCP/IP and S7 protocols.
- Implemented a local monitoring and control dashboard in Node-RED, achieving real-time operational visibility and constructed a remote dashboard on the Ubidots platform, integrating it with the gateway via MQTT protocol for advanced data analytics and control.

Education

Tecnologico de Ciudad Guzman

B.S. in Electronics Engineering

Aug 2015 – Jun 2020

- GPA: 9.4/10
- President of the 11th National Congress of Electronics Engineering.

Publications

Mathematical model in Zigbee communication

November 2018

Ernesto Ruiz, **Carlos Patricio**, Jorge Gutierrez

[CONIEEM Magazine](#)

Skills and Interests

Languages: Native Spanish and Intermediate Advanced English.

Technical: Linux, Bash, Python, SQL, Computer Architecture.

Interests: Hiking, Camping, Mountain Biking.