

Jose Logreira

Electrical Engineer

Aiming to boost high quality electronic design solutions in the local industry, through continuous learning of better development techniques

28 years
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Summary

Electrical Engineer with 5 years of work experience in technical areas of **electronic product development** at *Nuvitron* and **electrical design for industrial manufacturing** at *Marcopolo Colombia*.

I've been part of the design process of electronic and electrical products from idea to production, stepping through CAD models, prototyping, supply chain assessment, first batch production and coordination between areas.

Passionate about the Embedded Systems field, and currently focused in the area of firmware development design patterns. My interests include bare-metal as well as OS-based systems applied to sectors such as the IoT industry and digital control in Power Electronics

Highlights

- **Hardware design.** Product sketching, planning and functional specs. Design For Manufacturing (DFM), IPC standards, functional test setups and technical product documentation. Use of Open Source EDA tools for design and simulation.
- **Fast prototyping.** Components sourcing, SMT soldering (0402, QFN, etc.) and fast iteration cycles. Knowledge of local and international manufacturing capabilities. Proficient in hardware testing and debugging. Agile and competent work in electronic laboratories.
- **Programming.** Hardware-specific firmware development and integration with platform-independent libraries and APIs.
- **Focused on teamwork.** Excellent interpersonal relationships and high communication abilities. Knowledge of LEAN manufacturing and Kaizen methodology.

Work Experience

MARCOPOLO PRODUCT ELECTRICAL ENGINEER

Cota, Cundinamarca
02/2019 - 02/2020

- **Automotive electrical systems design:** Electrical systems standardization in the vehicles produced by the company, based on chassis, client requirements, and the current legal standards.
- **Factory technical support and design follow-up:** Lead the team of engineers and technicians to support the whole electrical vehicles' infrastructure.
- **Pneumatic systems:** Pneumatic and hydraulic systems design, testing and implementation for the vehicles' bodywork.
- **Information management:** Electrical designs management using enterprise SAP software.

NUVITRON ELECTRONIC DEVELOPMENT ENGINEER

Bogota DC
03/2015 - 01/2019

- **Prototypes design:** Workflow management based on three main tasks: components sourcing with local and international providers, prototype PCB design and manufacturing, and firmware development for the AVR family of MCUs.
- **Electronic Manufacturing:** Create documentation for production files, and development of the assembly line functional test. Final product assembly and testing.
- **Exploring platforms:** Use of Arduino and Raspberry platforms for circuit testing, configuration and programming, as well as acquiring skills in Python, POSIX standard, among others.
- **Teamed design work with the design department:** Brainstorming and low cost manufacturing techniques experimentation. Programming and operation of CNC machinery and Laser cutter for prototypes and batches production.

Education



NATIONAL UNIVERSITY OF COLOMBIA

Bogota DC

01/2009 - 12/2014

BACHELOR'S DEGREE - ELECTRICAL ENGINEER

- **Thesis:** DC Microgrid Implementation – PV generation and battery charging integration.
- **Scholarship:** Special Admissions Program - "Best High School Graduates", 2008.
- **State Exam (Saber Pro):** Ministry of Education acknowledgement - Best State Exam in Electrical Engineering, 2013.
- **GPA: 4.1/5**

LaSalle College

Bogota DC

01/2009 - 12/2014

HIGH SCHOOL

- **State Exam (Saber 11):** Best scoring group (1st over 1000), 2008-2.

Languages



Spanish Mother tongue

English • IELTS (November 2017)

Ability	Speaking	Listening	Reading	Writing
score	7/9	7/9	8/9	7/9
CEFR	C1	C1	C1	C1

- Graduate Record Examination (GRE), General Test (April 2018)

Ability	Verbal Reasoning	Quantitative Reasoning	Analytical Writing
score	157	159	4.5
percentile	76 th	73 rd	82 nd

German Basic

Key Courses



Apr - May 2020 *Introduction to web development*, ED.Team.

Mar 2020 *Python For Everybody*, Coursera.

Apr 2020 *Version Control with Git and GitHub*, Platzi.


Jul - Aug 2017 *Introduction to Embedded Systems*, Coursera.

Jan - Jun 2016 *Power Electronics Specialization*, Coursera.

Jun 2015 *Embedded Applications using Raspberry Pi*, Invertronica - Medellin.

Jun 2014 *High Power Energy Storage Applications*, National University - Bogota.

Sincerely,



Jose Alejandro Logreira Avila
Electrical Engineer

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