

Emilio A. Magaña

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EDUCATION

Bachelor of Science in Electrical and Computer Engineering

Graduated June 2021

Oregon State University

- ❖ GPA: 3.52/4.0
- ❖ Computer Science Minor
- ❖ *Related Coursework:* Digital Logic Design, VLSI, CMOS, Computer Architecture, Signal and Systems.

EXPERIENCE

Product Engineer

Oct. 2021 - Jan. 2024

Lattice Semiconductor | Hillsboro, OR | Python, SystemVerilog, R, Electrical Lab Equipment

- ❖ Main role consisted of validating and characterizing IP.
 - Wrote documentation of methodology for both validation and characterization.
 - Worked closely with all aspects of FPGA IP's, mainly on: I/O, PLL, OSC.
 - Developed behavioral patterns through our in-house design software.
 - In charge of bring-up, maintenance, and automatization of benches.
 - Created statistical visuals between specification and performance of IP.
- ❖ Worked with customer issues/JIRA (internal and external) in providing solutions and data.
- ❖ Small Projects involving: BSCAN/JTAG, Thermal Studies.

Teacher's Assistant/Head TA

Jan. 2019 - Mar. 2019

OSU, ECE Department | Corvallis, OR

- ❖ Coordinated lab sessions for ECE 112: Introduction to Electrical and Computer Engineering.

PROJECTS

Portfolio Website

Personal Project | TypeScript, React.js, Next.js, TailwindCSS, Git

- ❖ Designed a personal website to act as a root to all socials and future projects and as a self-introduction.
- ❖ Deployed using Next.js for developing serverless functionality, when handling api calls.

Wild Oasis

Personal Project | TypeScript, React.js, Supabase, TanStack, React Router, styled-components

- ❖ Designed a property booking website to act as an Airbnb clone, for authenticated users managing lodgings, guests, and bookings of property.
- ❖ Supabase is used for managing all information.
- ❖ Deployed using Netlify

High Voltage Peripherals

Global Formula Racing | Eagle CAD, LTspice

- ❖ Capstone Project was done with the Global Formula Racing (GFR) Team at Oregon State, a International Formula Student team in conjunction with DHBW Ravensburg, as part of the ePowertrain sub-team.
- ❖ Designed and Functionally tested the DC-Link (DCL) and Brake System Plausibility Device (BSPD) for both FS and FSAE 2021 Competitions.
 - Under FS rules:
 - The DCL discharged the vehicle's current **2627% faster** than the allotted maximum given time.
 - The BSPD **rebooted the car 11.6s** after no implausibility being present (reboot must be > 10s).
 - Under FSAE rules:
 - The DCL discharged the vehicle's current **50% faster** than the allotted maximum given time.
 - The BSPD was not to be used.

TECHNICAL SKILLS

Languages: TypeScript, Python, CSS, SystemVerilog, R, Go

Frameworks/Libraries: React.js, Next.js, Node.js, TailwindCSS, TanStack, React Router, styled-components

Tools: Vite, Git, Supabase, Electrical Lab Equipment, Eagle CAD, LTspice, Cadence

Conversational Languages: Spanish (Fluent, Oregon Seal Of Bilingualism), German (Conversational)