CHRISTIANO GRAVINA

Computer Engineer

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SUMMARY

Versatile and reliable computer engineer with a strong foundation in embedded systems, C++, and hardware integration. Eager to grow in the tech industry and apply a broad technical skill set to real-world challenges. More on my website!

EDUCATION

UNIVERSITY OF CALIFORNIA IRVINE, HENRY SAMUELI SCHOOL OF ENGINEERING — **IRVINE, CA**
Bachelor of Science in Computer Engineering — **2025**

PROFESSIONAL EXPERIENCE

MICRO CENTER — **TUSTIN, CA**
System Sales — **Current**

- Top salesman in General Sales (keyboards, mice, general electronics) then quickly promoted to Systems sales, where I found computer system solutions for people and businesses.

CENTER FOR EMBEDDED AND CYBER-PHYSICAL SYSTEMS — **IRVINE, CA**
Undergraduate Research — **2023 - 2024**

- Sole developer of the Cyclops self-driving truck, handling embedded C++/ROS development and hardware integration. Built and maintained real-time microcontroller communication using I2C/SPI.
- Supported an NFC-guided robotic car project for doctoral research, focusing on embedded control and sensor interfacing.

WALMART SUPERCENTER — **RIVERSIDE, CA**
Associate — **2021**

- Assisted customers and supported operations across multiple departments to address staffing and workflow gaps.

AMAZON WAREHOUSE — **SAN BERNARDINO, CA**
Outbound Shipping Dock Associate — **2021**

TECHNICAL SKILLS AND TOOLS

- Languages: C++, C, Assembly, Verilog, Python, Java,
- Embedded Systems: Arduino, Raspberry Pi, NVIDIA Jetson, I2C, SPI, UART, ROS,
- Software: Fusion 360, Cadence Virtuoso, Xilinx Vivado, MATLAB, Linux CLI, Git, Virtual Machines, OpenCV
- Lab Tools: Soldering, Oscilloscope, Bench Power Supply, Bench Voltmeter, Circuit Design, Perf-board Prototyping
- Languages: Fluent in Portuguese and English, Advanced Spanish
- Additional: Advanced Microsoft Word, PowerPoint and Excel, LLM Prompt Engineering

RELEVANT PROJECTS

SELF-DRIVING TRUCK WITH NFC — **I2C, SPI, C++, RASPBERRY PI, LINUX CLI**

- Developed embedded software for high-frequency, time-critical data transfers between Raspberry Pi and peripherals; part of a forthcoming research paper under Dr. Fadi Kurdahi.

CYCLOPS SELF DRIVING PLATOON PLATFORM — **C++, OPENCV, ROS, SOLDERING, PERF-BOARD PROTOTYPING**

- Capstone Project under Dr. Fadi Kurdahi. Extended a South Korean platooning platform.
- Developed high-level controllers in C++ and ROS. Integrated low-level firmware on Arduino and ensured real-time communication across modules. Built custom perf-board circuit and debugged hardware/software integration issues.

CMOS DIGITAL DESIGN PROJECTS — **CADENCE VIRTUOSO, CUSTOM SILICON DESIGN**

- Designed a **4-bit adder** and **up/down counter** in Cadence Virtuoso using custom CMOS logic; created and verified transistor-level schematics, then developed full custom layouts with DRC/LVS compliance for silicon implementation.

LOGIN SYSTEM — **ASSEMBLY**

- Designed and implemented a **login system in Assembly**, featuring custom keyboard input handling, character display, and a simple encryption scheme. Passwords were stored in non-sequential memory and obfuscated to avoid direct ASCII representation.

MIPS PROCESSOR WITH PIPELINING — **VERILOG**

- Designed and implemented a RISC-V pipelined processor executing custom bytecode as a solo project in EECS 112L.