



Frank Laterza

Embedded Systems Engineer | Computer Engineering Student

941-223-5298 | franklaterza@gmail.com | franklaterza.com | github.com/franklaterza | linkedin.com/in/laterzafrank/

EDUCATION

University of Central Florida

Bachelor of Science in Computer Engineering

Orlando, FL

Expected Graduation: Dec. 2025

Technical Skills

Languages: C/C++ | Rust | Python | Java | TypeScript | React | Next.js | VHDL | Verilog | GNU/Linux | Git | OOP | Data Structures

Hardware/Tools: Embedded Systems | FPGA | Eagle CAD | SolidWorks | Fusion 360 | Lathe | CNC | Soldering | SMT/THT

Microcontrollers: dsPIC33 chipset | Nordic NRF52 Series | Raspberry Pi Pico | Arduino | ESP32 | ESP8266

EXPERIENCE

Eta Space

Embedded Systems Engineer Intern

Rockledge, FL

June 2023 – Present

- Confirmed reliability of software through static code analysis, robust unit testing, and simulation to ensure flight readiness.
- Supplied engineering data to the main flight computer using SPI routines resulting in robust secure communication.
- Improved crash diagnosis through error traps using I2C routines integrated with external flash.

University of Central Florida's CREOL College of Optics and Photonics

Undergraduate Research Assistant

Orlando, FL

Jan. 2023 – May 2023

- Designed VHDL software for measurement of optics on FPGA, achieving a resolution of up to 2.5ns through oversampling.
- Verified accuracy through simulation using ModelSim, resulting in 4 times the performance using timing techniques.

35 Technology Group

Product Engineer Intern

Longwood, FL

Sept. 2022 – Dec. 2022

- Verified integrity of the central connecting interface designed for the F35 fighter jet eliminating redundant workflows.
- Manufactured parts using CNC and lathe machines designed with SolidWorks resulting in improved quality testing.

Sparrow Design

System Engineer Intern

Sarasota, FL

July 2020 – Aug. 2022

- Utilized 3D printing and CNC to fabricate custom prototypes resulting in satisfied patented designers and valued clients.
- Leveraged embedded systems skillset to create and deliver creative solutions matching client needs.

PROJECTS

Serial Monitor

Rust, TypeScript, Next.js, Tailwind

Aug. 2023

- Created an open-source, cross-platform desktop application for serial communication built with a web tool using Tauri.
- Designed a full-stack solution with a back end in Rust communicating serial data to the front end in Next.js.

Web Lock

C/C++, JavaScript, React, Fusion360, ESP8266

June 2023

- Integrated a microcontroller that interfaces with a web application to control an apartment door lock using C++ and JavaScript.
- Designed and prototyped multiple 3D-printed locking mechanisms door lock using Fusion 360.

Universal USB Control

C/C++, JavaScript, React Native, NRF52

Mar. 2023

- Implemented a solution to perform mouse, keyboard, and media controls from a phone onto any USB-capable device.
- Developed software for a microcontroller capable of BLE and USB communications emulating human input devices.
- Integrated chip to communicate with mobile app built with React Native utilizing Bluetooth to command device.