Lang Towl
Computer Engineer

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Career Objective

Enthusiastic Computer Engineering undergraduate student looking for an entry level position where I can apply skills in software engineering, hardware design, and sustainability to innovate solutions to pressing environmental issues.

Education

Pursuing a **B.S.** in Computer Engineering
Concentrated in Electric & Autonomous Vehicles
Florida Polytechnic University
Expected Graduation: May 2025
GPA: 3.5

Leadership Positions

- Provosts List for Academic Standing
- MCLA Div. II Lacrosse Captain 2021-2022
- Youth Ambassador to Parley for the Oceans
- Student Government Director of Internal Affairs

Projects & Work Experience

IOS App Development 2023 → Current

- In the process of developing an IOS app that provides users with short term surf forecasts and local weather conditions.
- Enables users to drop pins at their favorite locations, and will stream up-to-date buoy data from the nearest NDBC station, and notify users when conditions meet desired criteria.
    - Skills Learned:
        - Foundational skills in Swift and SwiftUI for IOS app development
        - Python for algorithms and communication with APIs

Verilog Military Stopwatch 2022 → 2022

- Designed a fully functional military style stopwatch using Verilog hardware description language.
- Design was composed of the following modules: half/full adder, ripple carry adder, BCD converter, clock divider, D and T flip-flop, 4 bit register, and LCD controller.
    - Skills Learned:
        - Learned the basics of Verilog programming, and how to use FPGA for testing and output
        - How to design a complex electrical system from the transistor level

Open Source Keyboard Design Project 2020 → 2021

- Designed a fully functioning computer keyboard driven by an ATMEGA32-U4 chip, on a custom PCB, programmed in C++.
- PCBs were manufactured by JLCPCB, and the components were soldered and assembled by hand.
    - Skills Learned:
        - PCB design, fabrication, and optimization
        - C++ programming and optimization

Manta Fin Co. 2019 → 2020

- Worked on founding an LLC that manufactured and produced high performance surfboard fins from up-cycled ocean plastics.
- Fins designed using Fusion 360, tested in SolidWorks, with rapid prototyping using 3D printing and CNC milling.
    - Skills Learned:
        - 3D modeling, product design, and CFD testing techniques
        - Basic business management practices

Industry Skills

- Digital Design
- C & C++ Programming
- Environmental Conservation
- Basic HTML & CSS for Web Development
- Basic Swift & SwiftUI for IOS App Development
- Product Design
- PCB Design & Fabrication
- Industry & Market Research
- Basic Verilog Programming for FPGA's
- CAD (Fusion 360, Eagle CAD, SolidWorks)

To learn more, please visit: langtowl.com