Lang Towl

Computer Engineer

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Career Objective

I am seeking an entry level computer engineering position where I can apply skills in software development, hardware design, and environmental conservation to innovate solutions to pressing climate issues. I aspire to collaborate within a design team working on consumer electric vehicles that inspire people to explore the outdoors without contributing to their decline.

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 targeted at intermediate to high-level athletes and personal trainers in the fitness industry.
- Enables users to build a workout library used to construct unique programs that tracks proficiency and successful lifts, with an emphasis on progressive overload to mitigate plateaus.

Skills Learned:

- Foundational skills in Swift and SwiftUI for IOS app development
- App design roadmapping and front end/back end development

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 FPGAs 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