Daniel Sarria

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Junior at the University of Virginia majoring in Computer Engineering in the School of Engineering and Applied Sciences. Focused on embedded computer systems, computer hardware, and design. Interests include coding and designing hardware with hardware description languages with an overall curiosity of new technologies.

Education

University of Virginia May 2025
Bachelor of Science in Computer Engineering *Current GPA: 3.7/4.0*
Stamford High School June 2021
IB and AP Classes *GPA: 4.0/4.0*

Relevant Coursework

Courses: Electrical and Computer Engineering Fundamentals; Digital Logic Design, Embedded Computer Systems, Software Development Essentials, Data Structures and Algorithms, Computer Systems and Organization, FPGA Design
Awards: Dean's List (University of Virginia: Fall and Spring Semester)

Skills

Languages: C, Java, Python, HTML/CSS, VHDL, Verilog
Tools: Git/GitHub, Powershell, VS Code, IntelliJ IDEA, Eclipse, x86_64 AT&T Assembly, VIM, LLDB Debugger
Hardware Design: National Instruments Multisim, Analog Discovery Waveforms, STM32 Micro-controller, FPGA

Projects

Voltage Boost Converter | *NI Multisim, Waveforms* December 2021
- Collaborated with a team to design a voltage boost converter
- Analyzed specific hardware, such as potentiometers, inductors, and capacitors, in order to construct the boost converter
- Designed a PCB that needed to meet various requirements

Active Filter Network for Audio Signal Processing | *Java, NI Multisim, Waveforms* December 2022
- Collaborated with a team to design a PCB that separates the high and low frequencies to process audio signals in real time
- Designed high pass and low pass filters using variations of operational amplifier circuits and analyzing specific electronics hardware, such as MOSFETS and diodes

Electrocardiogram (ECG)|*Python, NI Multisim, Waveforms* December 2023
- Collaborated with a team to design an ECG, integrating advanced concepts in electronics and signal processing, to accurately measure heart rate
- Designed Instrumentational Amplifiers, integrated Sallen-Key filters to refine ECG signals, implemented isolators for input/output signal isolation; Developed code for post-processing raw signals, effectively eliminating interference

Experience

Laser & Plasma Technologies LLC | *Intern* January 2023-Present

In Progress

Target | *Target Security Specialist* June 2022-January 2024

Research previous and recurring incidents utilizing Asset Protection Database

Documenting known theft reports and productive merchandise recoveries