Adrian Saavedra

AdrianS06@vt.edu ❖ www.linkedin.com/in/adrian-saavedra06/ ❖ (571) 265-0502 ❖ Woodbridge/Blacksburg VA

EDUCATION

Virginia Tech **Expected Graduation May 2028**
Prospective Electrical Engineer *Blacksburg, VA*
Double Major, Computer Engineering *3.12 GPA*

Relevant Coursework:
Multivariable Calculus, Differential Equations, Linear algebra, Signals and Systems, Embedded Systems, Physical Electronics, Computation Engineering, Digital Systems.

WORK EXPERIENCE

Astrobotics Electrical Lead **Aug 2024–Present**
Subteam Lead *Blacksburg, VA*

- Designed and implemented a master PCB enabling autonomous/teleop control, consolidating power distribution, signal filtering, and logic across 15+ peripherals and the onboard CPU. reduced wire was for CAN controlled objects by implementing star-topology as opposed to daisy chains, this also improved reliability.
- Current electrical lead for team focusing on systems engineering, training new members, and creating a modular electrical system that will allow final product to have multiple interchangeable modules with the connection of no more than 2 connections from main body to modules. This will make scaling easier with a goal of reducing maintenance time by 50%

Electrical Lead, First Robotics Competition (FRC) **Dec 2022–May 2024**
Subteam Lead *Woodbridge, VA*

- Led the electrical subsystem and topology design for a competitive FRC robot during a rigorous six-week development cycle, integrating CAN bus architecture across 20+ motor controllers and sensors to enable reliable signal communication and system control.
- Collaborated with mechanical and programming sub teams to design signal routes to diminish noise, led design on CAN bus pcbs to reduce wires by 75%, and full compliance with FRC regulations and reliability standards through cohesive system integration.

NOVA Systemic Fellowship **Sep 2022–June 2023**
Electronics Fellow *Mannases, VA*

- Developed technical documentation, wiring diagrams, and annotated code tutorials for arduino/microbit to support NOVA's hands-on activities during their educational summer camps enabling 100+ participants to learn microelectronics.
- Contributed to NOVA's public-facing curriculum and open-source teaching resources, expanding accessibility for K–12 programs.

SKILLS

PCB Design, Circuit Design, STM32 Microcontrollers, STM32 IDE, KiCad, Fritzing Circuit Diagrams, Wiring Diagrams, Soldering, FPGA, Signal Integrity, Power Electronics, SPI Communication, LTspice, I2C Communication, Raspberry Pi 4/Pico, Arduino, Circuit Analysis, Embedded Systems, Arduino Projects, Robotics Manufacturing, C++, C#, Rust, Python, Java, ROS 2, JavaScript, HTML, MATLAB, UART, Git, Verilog, CAN Bus, Fusion 360, Onshape, VCarve, AutoCAD, Wood CNC, Aluminum CNC, 3D Printing, Public Speaking, Technical Presentations, Spanish, Team Collaboration, Technical Support, Leadership, Rapid Prototyping, Documentation Writing, Problem Solving, VEX Robotics, University Rover Challenge, Lunabotics Competition, FRC Robotics

Organizations

Astrobotics, NASA robotics competition, **Electrical lead** **September 2024–Present**
DART, Battle Robotics, **Team lead** **August 2024-Present**
IEE at Virginia Tech, **August 2024–Present**
FIRST Robotics Competition, **Electrical Lead** **December 2022-May 2024**
VEX Robotics, **Mechanical Lead** **September 2022-May 2024**

Awards and Certificates

Deans list
Summa cum laude
Tournament Champion, VEX Robotics