Sai Tarun Alwala

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Objective

Aspiring Electrical & Computer Engineer with experience in embedded systems, robotics, and hardware prototyping, actively seeking internship opportunities in high-impact engineering teams. Motivated to contribute to real-world projects while continuing to grow technical depth in electrical and computer engineering.

Education

Georgia Institute of Technology | Atlanta, GA   *August 2025 – Present*
Bachelor of Science in Electrical Engineering, GPA 4.0   Expected Graduation, May 2029

Skills

Programming: Python, Java (novice)
Hardware: Arduino, Raspberry PI, Oscilloscope
Software: Fusion 360, Altium Designer (novice), GitHub
Languages: English (fluent), Telugu (native), Hindi (proficient)

Experience

Code Ninjas | Missouri City, TX   *June 2023 – May 2025*
Lead Sensei
STEM education organization which teaches children coding and problem solving through game development and hands-on projects
•Led Instruction for 30+ students per annum, supervised 5-6 instructors, integrated VEX Robotics into core curriculum to boost hands-on learning
•Created over 50+ hours of curriculum Increased student retention by 20% and enhanced student progression in the curriculum by 30%

Projects

Mini-Rover |RoboJackets (Robonav)   *Fall 2025*
Team-based project to design and build a 4-wheel drive mini-rover focused on basic navigation, object pickup, and task completion for club training
•Designed and assisted in implementing the motor power and control circuitry for the rover, enabling a reliable drivetrain under load
•Achieved 90% task completion during mobility testing and supported continuous operation throughout the competition time period.

Slip Sensing| Medical Robotics (Team Limbo)   *Fall 2025*
Team-based project to design and test a slip detection system to be incorporated into a robotic prosthetic hand
•Developed and tested a slip-sensing approach for robotics prosthetic hand using multi-sensor inputs and real-time signal analysis.
•Demonstrated moderate slip recognition across 3-4 different materials and force profiles through controlled experimental testing.

Relevant Coursework

Digital System Design: Computer system and digital design principles; switch and gate design; boolean algebra, number systems, arithmetic, storage elements; data path, memory organization, instruction set architecture, assembly language
Circuit Analysis: DC and AC circuit theory and analysis, operational amplifiers ;network theorems; Sinusoidal Steady State analysis; power analysis; first and second-order circuits

Activities

SEED (First-Year Leadership Organization)| Member   *September 2025 – Present*
Cohort-based program focused on community engagement, professional development, and campus involvement.
•Engaged in weekly leadership experiences centered around stepping outside your comfort zone and intentional growth
•Actively contributed to a supportive cohort by embracing challenges and fostering an environment which individual development