Maanav Talla

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SUMMARY

Junior Automotive Systems Engineering student seeking internships/job (2024-2025). Passionate about vehicle design, drivetrain, sustainability, Electric Vehicles, and thermal systems engineering.

EDUCATION

B.S.E., Automotive Systems Engineering Graduating May 2025
Arizona State University, Tempe, AZ
Relevant Coursework: Primary and Secondary Batteries, Designs of Electrical Systems, Concepts in Auto Engineering, Thermo Fluids, Vector Mechanics, Statistics, Engineering Project Design, Intro to Sustainability

WORK EXPERIENCE

Formula SAE, Arizona State University, AZ Summer 2023
Collaborated in a team of three on electrical motor design for Formula E Society of Automotive Engineers challenge.

- Handled tuning of a high-performance electric transmission
- Prepared bench testing equipment and performed calculations to validate thermal dissipation rate.

Autozone, Phoenix, AZ May 2023 - March 2024

- Leveraged comprehensive product knowledge to provide tailored solutions to customers, facilitating informed decisions on automotive parts and accessories, thereby enhancing customer satisfaction.
- Demonstrated strong problem-solving skills by troubleshooting and resolving technical inquiries from customers, ensuring accurate diagnosis and recommendation of appropriate solutions, fostering a reputation for reliability and expertise within the automotive community.
- Collaborated effectively with team members to streamline store operations and enhance overall efficiency, contributing to a 10% improvement in sales performance over the fiscal year.

ACADEMIC PROJECTS

PID-Controlled Motor System for Precision Control Applications Fall 2023

- Developed and implemented a PID controller algorithm on Arduino IDE for motor control applications, demonstrating familiarity with embedded systems programming and control theory.
- Collaborated with team members to fine-tune PID controller parameters, optimizing system stability, precision, and responsiveness for diverse operating conditions.
- Conducted rigorous testing and evaluation of the PID-controlled motor system, analyzing performance metrics such as steady-state error, overshoot, settling time, and disturbance rejection to ensure robust system performance.

Table Tennis Ball Launcher for Duchenne Muscular Dystrophy Children Spring 2022

- Engineered a mobile lightweight object propulsion machine with a team of 4 engineers.
- Designed a user-friendly trigger mechanism to control object propulsion and ensure user safety
- Programmed Arduino logic for precise control over numerous electrical components of the propulsion mechanism.

SKILLS

Design and Modeling Tools: SOLIDWORKS, MATLAB, Simulink, Fusion 360, Auto CAD, WaveForms, Multisim
Programming: Python, Arduino IDE, Basic C++
Interpersonal skills: Critical thinking, Leadership, Driven, Attention to Detail, Adaptable, Team Player