Tanmaee Ledalla

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EDUCATION

Purdue University, West Lafayette, IN   **August 2022 – May 2026**
Bachelor of Science in Mechanical Engineering   GPA: 3.95

SKILLS AND SOFTWARES

CAD Software: Siemens NX, Autodesk Fusion 360, SOLIDWORKS, Finite Element Analysis (FEA)
Programming Languages: MATLAB, C, Python
Skills: VI-Grade, GitHub, Microsoft Office, Public speaking, Decision-making, Creative thinking, Painting

RELEVANT EXPERIENCES

ASME Racing Team   **January 2023 - Present**
Vehicle Performance Lead   *Purdue University*
- Leading a team of 20 members for data analysis and software development using MATLAB
- Programming a racing simulator using ADAMS Car and VI-Grade to improve the driver's racing ability
- Running tests on the karts and collecting data using Arduino and MyChron5 for optimization
- Developing functions on MATLAB to optimize clutch tightness, carburetor settings, and camber angle
- Performing tests to optimize both EV karts and combustion engine karts

Transmission Team Member
- Built a two-speed sequential transmission to compete in the Annual Purdue Grand Prix
- Developed a program on MATLAB to predict the accurate shifting points for the racing kart
- 3D printed a model of the gearbox to test its compatibility with the kart

VCC Liquid Flow Cooling Project   **August 2023 – December 2023**
Undergraduate Researcher at Herrick Labs   *Purdue University*
- Designed a vapor compression cooling system to minimize energy losses from the R290 refrigerant
- Assembled the system and ran experimental performance evaluations
- Utilized thermocouples and a DAQ to acquire temperature and power data from the refrigeration cycle
- Optimized the setup using an Aspen Compressor and Swagelok fittings

ASME Executive Board   **May 2023 – December 2023**
Graphic Designer   *Purdue University*
- Created flyers, posts, and logos for ASME to increase member engagement
- Transformed strategic objectives into tangible actions to market the organization's activities
- Designed stickers and merchandise to aid in outreach and recruitment efforts

EPICS SPEEDWAY Team   **January 2023 – May 2023**
Pitstop Team Member   *Purdue University*
- Created a mock pit-stop exhibit for the Indianapolis Motor Speedway Museum
- Programmed an ESP-32 microprocessor using C language to simulate a fuel tank being filled up
- Conducted durability tests on the exhibit to ensure it was safe for children of all ages

EPICS PAWS Team   **August 2022 – December 2022**
Cat Box Team Design Lead   *Purdue University*
- Successfully built a box which can trap feral cats to vaccinate and transport them safely
- Delegated engineering tasks and communicated clear goals to ensure team success
- Reflected on experiences each week to document the team's progress and my personal development

AWARDS
- FEA Milestones-ASME Course Certification
- Dean's List and Semester Honors – Purdue Fall 2023, Spring 2023, & Fall 2022