TEJAS S

+91 7676632567| s7.tejas@gmail.com | Linkedin| Bengaluru,India

SUMMARY

A passionate Electronics and Instrumentation Engineering student with expertise in control systems, embedded electronics, and AI-driven applications. Experienced in developing IoT-based structural monitoring systems, signal processing using MATLAB, and AI models for ADAS, focusing on Autonomous Emergency Braking (AEB). Proficient in digital electronics, system dynamics, and simulation tools. Eager to apply my skills in aerospace, automotive, and electronics industries

EDUCATION

JSS Academy Of Technical Education, **India**
B.E/B Tech in Electronics and Instrumentation Engineering
Coursework: Analog Electronics,Control Systems,Digital Electronics,Embedded Controllers,C/C++,DSP,ARM

EXPERIENCE

Intern – CSIR-National Aerospace Laboratories (NAL) **Feb-2025-March-2025**
-Low Velocity Impact Monitoring on Composite Structures using IoT
-Developed an IoT system for impact detection on composites.
-Designed circuit for proper sampling of data and worked on getting high sampling rate

AI Engineering Intern – DOTS **Jan-2025- Present**
-Developing AI models for ADAS, focusing on Autonomous Emergency Braking (AEB).
-Implementing and optimizing machine learning algorithms for AEB decision-making

Automation Engineer Intern at SpaceChips **Sep-2024 - Oct-2024**
-Developed Python scripts to automate control of test equipment through USB interfaces.
-Utilized SCPI and VISA protocols to manage and configure test instruments.

HONORS AND AWARDS

- **Won 1st Prize in Startup Competition by ISRO(Indian Space Research Organisation) & NewSpace India Limited Startup Competition in ISRO HQ Bengaluru**
  Recognized for outstanding innovation and project proposal on Space debris, awarded by ISRO and NSIL
- **Top 25 in India, AICTE Inventors Challenge By ARM and STMicroelectronics in Greater Noida**
  Selected for the top 25 innovative prototype for the "Gloves for Sign Language Conversion" project to present In LIET Greater Noida, Uttar Pradesh conducted by AICTE

PROJECTS

- **Gloves for sign language conversion**
  Currently developing smart gloves designed to translate sign language gestures into spoken words. The project utilizes an STM32 microcontroller, flex sensors, Bluetooth communication, and a speaker module to enable real-time gesture recognition and audio output. This innovative project is recognized among the India's top 25 in the AICTE Inventors challenge competition in India, demonstrating its potential impact on enhancing communication for the hearing impaired

- **Edge Impact Localization for Advanced Structural Health Monitoring**
  Developed a Structural Health Monitoring (SHM) system leveraging sensor networks to detect and analyze stress, vibrations, and deformations in structures. Designed data acquisition circuits and implemented real-time data processing using microcontrollers. Utilized algorithms for anomaly detection and predictive maintenance. Focused on enhancing structural safety and reducing maintenance costs

TECHNICAL SKILLS

- **Programming Languages**: C, C++, Python
- **Hardware Description Languages**: Verilog, Assembly language,microcontroller programming
- **Control Systems**: Matlab, control theory
- **Design Tools**: PCB design KiCad,Catia V