TADURI SAI SUSHANTH

B.Tech. - Computer Science & Engineering

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BRIEF SUMMARY

Mission-driven Computer Science student with hands-on experience building scalable AI agents, full-stack web applications, and IoT-integrated
systems. Strong command of machine learning, systems design, and real-world product delivery, with a track record of leading impactful tech
initiatives. Passionate about applying technology and engineering to solve society's pressing problems—whether in sustainability, education, or
accessibility—through thoughtful, scalable, and user-centric solutions.

EDUCATION

VNR Vignana Jyothi Institute of Engineering and Technology 2022 - 2026

B.Tech. - Computer Science & Engineering | CGPA: **9.29** / **10**

Sri Chaitanya Junior College 2021

12th | BOI | Percentage: **99.20** / **100**

Bhashyam High School, Penugonda 2019

10th | SSC | CGPA: **10** / **10**

PROJECTS

Jarvis – AI Personal Assistant using LangGraph 15 Jun, 2025 - 15 Jul, 2025

Key Skills: Agentic AI | LangGraph | ntfy | python | Groq LLM

Project Link: https://github.com/Aryashu-1/JARVIS-1.0

Designed a personal AI assistant using Groq LLM and LangGraph to automate daily productivity tasks like scheduling, reminders, email, and document retrieval.
The system uses agentic workflows to interact with external APIs and deliver contextual, multi-step responses.
Developed modular LangGraph agents for task management, integrated EmailJS for automated communications, and ntfy for real-time notifications.
Focused on extensibility and asynchronous task execution using open-source tools and prompt-driven workflows.

SWEEP – Smart Waste Segregation Using Deep Learning 15 Jan, 2024 - 15 Jul, 2024

Key Skills: Deep Learning | Pytorch | CNN | EfficientNet

Project Link: https://github.com/Aryashu-1/SweepNet

Designed a deep learning–powered waste classification model using PyTorch and OpenCV, achieving 90% test accuracy.
Improved model precision by 10% using transfer learning with ResNet50, EfficientNet, and InceptionV3.
Developed a full-stack MERN-based dashboard for real-time bin monitoring and route optimization for waste collection teams.
Deployed the solution at pilot locations to promote recycling and was nationally recognized by Samsung SFT and Hult Prize India for its sustainability impact.

ZOOP – Campus Canteen Ordering & Management System 01 Oct, 2023 - 01 Feb, 2024

Key Skills: ReactJS | NodeJS | MongoDB | Javascript | Figma

Project Link: https://github.com/aryashum/zoopuserfrontend

Developed a user-centric e-commerce platform with responsive UI using ReactJS, enabling smooth browsing and checkout experiences.
Designed authentication flows, cart management, and real-time data sync with Node.js and MongoDB.
Created interactive UI prototypes in Figma to guide front-end design and improve usability.
Integrated REST APIs to connect client and server seamlessly for dynamic order and inventory updates.

HandNav – Gesture-Controlled Virtual Mouse 04 Jul, 2023 - 04 Jul, 2023

Key Skills: Python | OpenCV | Mediapipe | Computer Vision

Project Link: https://github.com/Aryashu-1/HandNav

Built a contactless virtual mouse using OpenCV and MediaPipe for real-time hand gesture recognition and cursor control. Developed fingertip tracking algorithms and custom Python scripts to map hand gestures to precise on-screen actions. Enabled hands-free

computing and improved accessibility for users with mobility challenges. Tested and fine-tuned gesture sensitivity to ensure smooth and responsive interactions.

CHAMPS-Unity – College Social Networking Platform

15 Apr, 2022 - 15 Jun, 2022

Key Skills: C++ | Socket Programming | Multithreading

Project Link: https://github.com/Aryashu-1/CHAMPS-UNITY

Developed a multifunctional console-based app for Windows aimed at improving student productivity and coordination.
Implemented peer-to-peer networking using socket programming in C++ to support local real-time chat and data sharing.
Integrated modules for task management, calendar scheduling, reminders, music sharing, and daily predictions.
Focused on enhancing collaboration and organizing daily routines through a single lightweight tool.

PUBLICATIONS / RESEARCH / WHITE PAPERS

BSAVNN: Basis Scaling and Activations Vectorised Linear Neural Network

Patent | **Mentor:** Dr. V. Baby | **No. of Authors:** 5

Key Skills: Neural Networks | Encryption | Privacy Preserving | Mathematics

The present invention relates to a secure and efficient framework for processing data within ReLU-activated linear neural networks, specifically a system and method employing basis scaling and activation vectorization techniques to ensure data privacy and security during neural network computations.

ACHIEVEMENTS

- Samsung SFT 2024 Semi-Finalist (Top 10 in India out of 5000)
- Hult Prize India National Finalists (Top 70 among 14000)
- Campus Automation Contest Winners (First in 50)
- Designathon Runner Ups (3rd in 400)

POSITIONS OF RESPONSIBILITY

Development Lead - Aryashu Tech

Led the end-to-end development of two high-impact technology solutions addressing real-world challenges in sustainability and automation.
Oversaw cross-functional teams, managed technical architecture, and drove product delivery from ideation to deployment.

Lead and Student Coordinator - Student Alumni Relationship Cell (SARC) , VNRVJIET

Led alumni engagement efforts as the Student Coordinator of SARC, driving communication and coordination between current students and alumni.
Coordinated events, mentorship sessions, and feedback loops to strengthen alumni relations.

Volunteer - MathViz : Data Visualisation Workshop, VNRVJIET

Volunteered to teach data visualization tools such as Matplotlib (Python) and Power BI during a campus workshop

Organizing Committee Member & Hospitality Head - VJMUNSOC : Model United Nations, VNRVJIET

Acted as the member of Organising committee for VJMUNSOC at VNRVJIET
Managed transport for delegates and participants from multiple colleges