

SHANESHRAJE SANDEEP KADU

EDUCATION

Indian Institute of Technology (BHU), Varanasi <i>Integrated Dual Degree in Industrial Chemistry</i>	2023 - 2028 7.17
Global Public School <i>Maharashtra State Board of Secondary & Higher Secondary Education</i>	2023 76.50%
DVVPF's English Medium School <i>CBSE</i>	2021 92.80%

SKILLS

Languages: C++, Python, JavaScript, TypeScript

Tools & Technologies: DSA, OOPs, DBMS, OS Frameworks, System Design, Backend, SQL, Cloud Computing, Git, Linux, Multithreading & Concurrency, Debugging, Testing, CI/CD, Scalability, Security, Performance Optimization, ML, DA

INTERNSHIPS

Tryaksh Innovations Pvt. Ltd. <i>Product Development Engineer - Intern</i>	May 2026 - July 2026 Nagpur, Maharashtra
- Designed an AI-enabled rail inspection system using CAD, FEA, and DFM optimization for robust field deployment. - Developed STM32/ESP32-based PCBs with sensor integration, embedded firmware, and hardware validation. - Integrated mechanical, electronic, and software subsystems into a validated prototype with end-to-end testing.	
DNA Automation <i>Industrial Automation Intern</i>	Dec 2025 - Jan 2026 Faridabad, Haryana
- Designed and developed IADP, a web-based IoT platform for industrial machine monitoring and data visualization. - Implemented PLC-IoT integration using MQTT, Node-RED, and Firebase for secure real-time telemetry. - Built a scalable industrial platform featuring analytics, alarms, centralized data management, and remote monitoring.	

PROJECTS

SupplyPulse AI – Supply Chain Intelligence Platform	2026
- Built an AI-powered logistics platform using Next.js, FastAPI, and ensemble ML for supply chain risk prediction. - Developed SHAP-powered explainable AI, geospatial dashboards, and an AI copilot for logistics insights. - Engineered interactive dashboards & geospatial tracking for real-time supply chain intelligence.	
Dual Drone Autonomous Disaster Management System	2025
- Built a ROS 2-based dual-drone system for autonomous survivor detection and precision aid delivery. - Integrated Jetson Orin, Pixhawk Cube Orange+ & a custom payload drop mechanism with dedicated Algorithm. - Developed a custom survivor detection model, & GUI Ground Station for real-time operations.	

POSITIONS OF RESPONSIBILITY

Jt. Secretary, Aero-Modelling Club	May 2025 - April 2026
- Led 4 UAV workshops and recruitment drives, mentoring 50+ students in drones, robotics, and autonomy. - Developed autonomous UAVs for Inter IIT, e-Yantra, NIDAR, SAE Aero, and other national competitions.	
Member, Festival Committee, Students' Parliament	March 2025 - March 2026
- Coordinated Kashiyatra'26, Technex'26, and Spardha'25, ensuring seamless execution of flagship institute events. - Managed logistics, volunteers, sponsors, and stakeholders for events on a large scale.	

ACHIEVEMENTS

Patent Dual-Drone Autonomous System for Coordinated Disaster Relief & Survivor Detection System: Developed a autonomous UAV system integrating ML, CV, MAVLink, and autonomous mission coordination.
Patent Shanesh's DigiGoniometer: A digital instrument for precise joint angle measurement.
Ignite Prize Winner at NIDAR'25: India's premier drone challenge for Autonomous Drone & Disaster Management.

EXTRA CURRICULARS

Army Training Camp: Led 5-days autonomous drone operations training for Indian Army personnel at 39 GTC
Invited Speaker: At MUHS-DISHA Incubation Center, presenting innovations in medical technology & digital healthcare.
PAN IIT Tech Expo: Represented IIT (BHU) at Inter IIT Tech Meet 13.0, showcasing an autonomous drone system.

CERTIFIED COURSES

Certified **Cambridge English B1 (PET)** with **Merit**, demonstrating professional English proficiency.