KANISHK SINGH

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Professional Summary

Highly motivated and results-driven **Software Developer** with hands-on experience in **MERN stack development, real-time web applications, backend systems, and software engineering**. Skilled in designing and developing scalable, responsive, and user-focused applications while integrating APIs, databases, and real-time communication technologies. Strong problem-solving abilities with a passion for writing clean, efficient code and continuously exploring emerging technologies to build reliable and innovative software solutions.

Education

KIET Deemed to be University 2024 – 2028
Bachelor of Technology (B.Tech) *CGPA: 7.04*

Technical Skills

Programming Languages: JavaScript, Java, Python, C, SQL
Frontend Development: React.js, Redux, Zustand, HTML, CSS
Backend Development: Node.js, Express.js, REST APIs, Socket.IO, JWT Authentication, Microservices
Databases: MongoDB, Redis
Developer Tools: Git, GitHub, Docker, Ubuntu, CI/CD, Vercel, Render
Software & Technologies: Cloudinary, Multer, OpenCV, Computer Vision
IoT & Robotics: IoT Systems, PLC-SCADA (TIA Portal), ROS2, Gazebo, URDF

Projects

Speakify | Real-Time Chat Application

React.js, Node.js, Express.js, MongoDB, Socket.IO
Live Demo: https://speakify-pg3w.onrender.com/

- Developed a scalable real-time chatting application enabling instant bidirectional communication between users.
- Implemented Socket.IO for low-latency messaging and real-time event handling.
- Built RESTful backend APIs using Node.js, Express.js and MongoDB for authentication and chat management.
- Implemented JWT-based authentication and authorization for secure user access.
- Integrated Cloudinary and Multer for image upload and media management.
- Optimized client-side state management and deployed the application using Render.

Holo Battalion (e-Yantra Robotics Competition – AIR 2)

ROS2, Gazebo, URDF, Python, OpenCV, Ubuntu 22.04

- Developed and simulated autonomous holonomic robots using ROS2, Gazebo, and URDF for warehouse logistics tasks.
- Implemented holonomic drive control, coordinate-frame transformations, and OpenCV-based perception modules.
- Utilized ROS2 nodes, topics, services, and coordinate transformations for robot communication and localization.
- Optimized robot navigation and task execution in simulation environments, contributing to AIR 2 in eYRC 2026.

AI Chatbot

MERN Stack

- Developing an AI-powered chatbot application with conversational interaction handling.
- Implementing responsive frontend architecture and scalable backend workflows.
- Managing API integrations and full-stack deployment practices.

Hand Gesture Controlled Car | Team Leader

Arduino Nano, MPU6050, HC-05 Bluetooth Module

- Led a team in developing an IoT-based gesture-controlled robotic vehicle.
- Integrated MPU6050 sensor for motion sensing and real-time gesture recognition.
- Implemented wireless communication using HC-05 Bluetooth module for remote control.
- Designed embedded motor control system for accurate movement execution.

Achievements & Participation

- AIR 2 – IIT Bombay e-Yantra Robotics Competition (eYRC), 2026
- Participant – IIIT Delhi RoboWar Competition
- Participant – KIET INNOTECH Technical Event