

SHAIKH HUNAIN

B. Tech – Computer Science & Artificial Intelligence | VIT Pune

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EDUCATION

Vishwakarma Institute of Technology (VIT), Pune

2024 – Present

B. Tech – Computer Science & Artificial Intelligence

Relevant Coursework: Machine Learning, Data Structures & Algorithms, DBMS, Web Technologies, Full Stack Development

PROJECTS

Tomato – Full Stack Food Delivery Platform

- Built a full-stack MERN food delivery application with real-time order tracking using Socket.io and live delivery partner location updates
- Implemented multi-role authentication (Customer, Restaurant Owner, Delivery Partner) using JWT and Firebase Admin SDK
- Integrated geospatial restaurant discovery for Pune with Leaflet.js, featuring 15+ real-world restaurants sorted by proximity
- Deployed frontend on Vercel and backend on Render with dynamic REST API design supporting all order lifecycle states

FormBhar – AI-Powered Google Forms Auto-Filler

- Built a production Chrome Extension (Manifest V3) with a Node.js/Express backend and Supabase PostgreSQL, featuring real-time telemetry for live active session tracking across all users
- Integrated multi-model AI engine (OpenAI GPT-4o-mini, Gemini 1.5 Pro, Claude 3) with automatic provider fallback, enabling intelligent form context reasoning and coherent multi-page auto-fill
- Implemented privacy-first architecture isolating API keys in Chrome Service Worker environment; deployed with Autonomous Auto-Fill Mode requiring zero user interaction on form load

PhysioTracker – AI-Powered Physiotherapy Monitoring System

- Developed a real-time posture correction system using MediaPipe for 33-keypoint skeletal tracking and BiLSTM for temporal exercise sequence classification
- Achieved high-accuracy movement recognition enabling automated rep counting and live form feedback for home physiotherapy patients
- Built full-stack REST API with Flask backend and React + TypeScript frontend delivering sub-100ms inference latency for real-time feedback

SARAS – Smart Autonomous Robotic AI System

- Built an AI-powered autonomous robot integrating voice interaction, computer vision, and navigation using Raspberry Pi, multiple AI models, and multimodal perception.
- Implemented real-time speech recognition, conversational AI, object detection, and autonomous exploration, combining hardware control with full-stack AI software for intelligent human-robot interaction.

Shortest Path Algorithm Simulator – Pune Road Network

- Built an interactive web app visualizing Dijkstra, A*, Bellman-Ford, and Floyd-Warshall algorithms on a real Pune city road network using OpenStreetMap data
- Implemented side-by-side algorithm benchmarking with animated path overlays, node expansion counters, and time complexity comparisons on Leaflet.js maps

TECHNICAL SKILLS

Frontend: React.js, HTML5, CSS3, JavaScript (ES6+), TypeScript, Vite, Leaflet.js, Chart.js

Backend: Node.js, Express.js, Flask, FastAPI, REST APIs, Socket.io, JWT Authentication, Firebase Admin SDK

Databases: MongoDB, MySQL, PostgreSQL, Redis

AI / ML: Python, TensorFlow, Keras, scikit-learn, XGBoost, MediaPipe, BiLSTM, SHAP, CNN, FastAPI inference

Design & Media: Canva, Adobe After Effects (basic), Figma (basic)

Cloud & DevOps: Docker, Render, Vercel, Git, GitHub, Postman, Linux, VS Code

ACHIEVEMENTS & HIGHLIGHTS

- Co-authored & published conference paper [“A Comparative Study of Deep Learning and Classical Machine Learning for Image-Based Plant Disease Detection”](#) at International Conference on Innovative Approaches in Multidisciplinary Engineering and Technology (ICIA-MET’26)
- Built and deployed 7+ end-to-end full-stack and AI/ML projects within first two years of college
- Active technical contributor at The Ideators Club (TIC), VIT Pune — managing events and developer initiatives
- Strong foundation in competitive programming with C++ and algorithmic problem-solving (graph algorithms, DP, data structures)
- Contributed to open-source AI and software engineering projects by implementing performance optimizations, bug fixes, CI workflows, and system stability improvements.