Ashish Ranjan

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in Ashish Ranjan ⌨ AshishNith

Introduction

Highly motivated and skilled college student with extensive experience in Python programming, ROS2 Humble, and web development. Proficient in utilizing various libraries and frameworks to create in novative solutions. Demonstrated ability to work on complex projects, with a keen interest inIoT and AI/ML. Known for attention to detail, problemsolving skills, and the ability to learn and adapt quickly.

Skills

Languages: Python, JavaScript

Frontend Development: HTML, CSS, JavaScript, GSAP, React.js, Tailwind CSS, Vite.js, Next.js,

Backend Development: Node.js, Django, Flask, Express.js

Database: MongoDB

Robotics and Simulation: ROS, ROS2, CAD

Operating Systems: Windows, Linux (Ubuntu & kali)

Other Technologies: Git & GitHub, Docker

Education

NIT Hamirpur   *Aug 2023 – July 2027*
BTech in Mechanical Engineering
The Chandrasheel School   *2010 – 2022*
Schooling

Projects

Roboweek Website   github ↗
- Created a website for a National Level Event at Robotics Society, NIT Hamirpur.
- Tools Used: React.js, Tailwind CSS, GSAP, Framer Motion
- Live Demo: roboweek-3-0.vercel.app/ ↗

OpenDay Event Website - DESE IISc Bangalore   github ↗
- Built the official event website for OpenDay at DESE, IISc Bangalore.
- Tools Used: React.js, Tailwind CSS, GSAP
- Live Demo: dese-website.vercel.app ↗

Literacy Mission Website   github ↗
- Designed and developed the official website for the Literacy Mission.
- Tools Used: React.js, Tailwind CSS, GSAP
- Live Demo: literacy-mission.vercel.app/ ↗

Portfolio Website   github ↗
- Created a personal portfolio website to showcase projects and achievements.
- Tools Used: React.js, Tailwind CSS, GSAP
- Live Demo: portfolio-ashish9992.vercel.app ↗

Hotel Website   github ↗

- Developed a fully responsive hotel booking website with dynamic functionalities.
- Tools Used: React.js, Tailwind CSS, GSAP, Framer Motion
- Live Demo: hotel website ↗

Surgical Robotics Arm   github ↗
- Developed an advanced robotic arm for surgical applications.
- Tools Used: ROS2, Gazebo, Vite.js, Framer Motion

Smart Glasses for the Blind   github ↗
- Developed AI-powered smart glasses integrating ESP32, LLM, and fine-tuning.
- Tools Used: ESP32, Python, LangChain, AI Model
- Live Demo : Demo Video ↗

AI Chatbot   github ↗
- Built an AI chatbot using Ollama and LangChain for intelligent interactions.
- Tools Used: Python, Ollama, LangChain, AI Model, Fine-Tuning, RAG

Line Follower - PID
- Developed an autonomous line-following robot using PID control.
- Tools Used: ESP32, Web-based PID Tuning, PID

Experience

Robotics Society, NIT Hamirpur

Executive
Oct 2023 – Present

- **Organized and led 'Roboquest 2.0', a robotics workshop for first-year students with over 500 participants, focusing on gesture-controlled bots.**
- Developed and maintained the official website for the Robotics Society, implementing interactive features and a chatbot.
- Spearheaded the design and development of a surgical robotic arm, through research and prototyping.
- Conducted technical interviews for new members, focusing on logical thinking and problem-solving skills.
- Led the creation of a brochure detailing all ongoing projects and opportunities for collaboration.