

NISARG VEKARIYA

B.Tech (Honours) in ICT with minor in Computational Science
Dhirubhai Ambani University (formerly DA-IICT)

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in Nisarg Vekariya

nisargvekariya01

NISARG_07

CODECHEF nisarg_v07

EDUCATION

Dhirubhai Ambani University (formerly DA-IICT)

B.Tech (Honours) in ICT with minor in Computational Science

Gandhinagar, Gujarat
2024 - Present

Ashadeep IIT

Class 12th, GHSEB - Percentage: 88.15%

Surat, Gujarat
2022 - 2024

EXPERIENCES

Sanjivani NGO

Pune, Maharashtra (Remote)

Rural Internship

Dec 2025

- Contributed to community development initiatives through fieldwork and on-ground engagement.
- Supported organizational activities and operational tasks during the internship.

PROJECTS

ChatSphere: Real-time Terminal Chat Application

C++ • Socket Programming • Multithreading • Linux/Unix Systems • [Project Link](#)

Mar 2025 - Apr 2025

- Led a team of developers to architect and deploy a multi-platform, terminal-based chat engine in C++ using TCP/IP sockets and non-blocking I/O.
- Engineered a multithreaded server architecture using POSIX threads (pthreads) to handle concurrent client connections and dynamic room management.
- Implemented advanced features including private messaging via user tagging, message history persistence, and a custom Markdown-like parser for rich text formatting.
- Built asynchronous terminal UI supporting real-time input and scrollable history using ANSI escape codes.

Smart Assistive Cane: IoT-Enabled Navigation Aid

C++ • Arduino Uno • ESP32 • Hardware Integration • Twilio API • [Project Link](#)

Jan 2025 - Nav 2025

- Led a 5-member engineering team to architect and prototype a smart assistive device for the visually impaired, leveraging Arduino Uno and ESP32 microcontrollers for real-time environment processing.
- Engineered an automated hazard detection system integrating HC-SR04 ultrasonic sensors to identify obstacles and provide immediate auditory feedback via a buzzer.
- Implemented a robust emergency response protocol utilizing an MPU6050 gyroscope for automated fall detection alongside a manual panic button for critical situations.
- Integrated the Twilio API and a NEO-6M GPS module to seamlessly trigger automated SMS alerts, transmitting precise real-time location data to caregivers during emergencies.

SKILLS

Languages: C, C++, Java, JavaScript, SQL, MATLAB

Frontend: HTML, CSS, React.js

Backend: Node.js, Express.js, Socket Programming, Twilio API

Databases: PostgreSQL, MySQL, MongoDB

Tools: Git, GitHub, VS Code, Linux, POSIX Threads (pthreads)

Hardware / IoT: Arduino, ESP32, STM32

CS Fundamentals: Data Structures & Algorithms (DSA), Operating Systems (OS), Object-Oriented Programming (OOP), DBMS, Computer Networks

ACHIEVEMENTS

- Codeforces: Specialist (Max Rating: 1425) [NISARG_07]
- Codechef: 3 ★ (Max Rating: 1630) [nisarg_v07]
- Jee Mains: 99.33 Percentile (AIR 10821)
- Jee Advanced: 122 Marks (AIR 18321)