

# Sudharshan Hegde

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## Education

### University of Visvesvaraya College of Engineering

Dec 2022 - Aug 2026

B.Tech in Computer Science and Engg. (CGPA 9.03)

### SDM PU College, Honnavara

Jun 2020 - Mar 2022

Pre University Education, PCMB - 96%

## Projects

### Peer To Peer File Sharing System - Java, Sockets, Multi Threading

- Developed a multi-threaded P2P file-sharing system in Java with centralized peer tracking and chunk-based distribution.
- Implemented parallel downloading using BitSet tracking, dynamic peer selection, and JSON-based client-server protocols.

### Interview Agent - Node.js, Express.js, RESTful APIs

[Link](#)

- Built a full-stack mock interview platform with Node.js, Express, and real-time AI feedback via Google Gemini integration with failover handling.
- Engineered adaptive question flow using resume parsing, with concurrent session management and RESTful API support.

### Resume Analyzer - React, Flask, Spacy NLP

- Developed a Resume Analyzer web app with Flask and NLP to extract, evaluate, and match resume content to job descriptions.
- Used entity recognition and skill-matching to deliver real-time, personalized feedback through an interactive UI.

### MiniSQL - Lightweight Database Engine (C++17, File I/O, Data Structures)

- Built a custom SQL database engine with a command-line interface supporting CRUD operations and transactions.
- Implemented file-based storage, index-based query optimization, and ACID-compliant transaction management.
- Added a query planner, logging system, and configuration module for efficient and reliable performance.

## Extra Curriculars and Competitions

**Batch 5 Student, MARVEL UVCE** - Completed Level 1 & 2 in AI&ML Domain

**Matrix Forum University Awards** - Ranked among Top 10 finalists in the AI for Revolutionizing Creativity, Automation, and Solutions Ideathon.

**Rank 1 on TakeUForward's DSA leaderboard** for several weeks, with 400+ problems solved across diverse data-structure and algorithm topics.

## Skills

**Programming Languages:** C, C++, Python, Java, HTML, CSS, JavaScript

**Web Technologies:** React, Flask, RESTful APIs, render

**Database:** MySQL, MongoDB

**Software Development:** Shell Scripting, Git, System Calls, Docker

## Relevant Coursework

Computer Networks, DBMS, Operating Systems, Object Oriented Programming, Data Structures and Algorithms

## Certifications

- AI Agents and Agentic AI with Python and GenAI
- Python for Data Science, AI, and Development
- Intro to Containers with Docker, Kubernetes and OpenShift