

# Sanjukta Mukherjee

Bachelor of Technology  
VIT AP University

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🔗 Codolio Profile

🔗 GitHub Profile

🔗 LinkedIn Profile

🔗 LeetCode Profile

## PROFILE SUMMARY

Enthusiastic Computer Science undergraduate with a strong foundation designing and developing highly scalable, mission-critical applications using modern programming languages, data structures and algorithms, and object-oriented programming. Eager to contribute to innovative software development projects, leveraging proven experience in web development, data analysis, and cloud technologies to build impactful user experiences and efficient systems.

## EDUCATION

### •Bachelor of Technology in Computer Science and Engineering

2022–2026

Vellore Institute of Technology, Andhra Pradesh

CGPA: 8.61

### •South Point High School, Kolkata, West Bengal

2007–2022

CBSE Board

Grades: 93.4% (CBSE 2020), 89% (CBSE 2022)

## TECHNICAL SKILLS

- **Programming Languages:** Python, Java, SQL, HTML, CSS, JavaScript
- **Core Concepts:** Data Structures and Algorithms, Object-Oriented Programming (OOPs), Operating Systems, DBMS, Computer Networks
- **Web Development:** HTML, CSS, JavaScript, Bootstrap
- **AI/ML & Data Analysis:** Knowledge of basic algorithms, YOLO, Faster R-CNN, OpenCV, TensorFlow, scikit-learn, Sentence-Transformer, spaCy, ETL Pipelines, Data Cleaning, SQL Queries, Star Schema Modeling, Excel
- **Database Management:** SQL, MongoDB (Currently Pursuing)
- **Developer Tools & Platforms:** Git, GitHub, Flask, Arduino, Processing 4

## PROJECTS

### •SQL Data Warehouse & Analytics Project

SQL Server, ETL, Star Schema

- Built a centralized data warehouse on SQL Server for analytics and reporting, integrating ERP & CRM data.
- Performed comprehensive data cleaning, normalization, and dimensional modeling (Star Schema) to ensure data integrity and usability, enabling SQL-based business queries.
- Project Link: **GitHub**

### •Event Management Dashboard

HTML, CSS, JavaScript, Bootstrap, Excel

- Developed a dynamic UI to manage event metrics using HTML, CSS, JavaScript, and Bootstrap.
- Integrated Excel file processing to automate data reading for events and calculated total contributions, expenses, and remaining funds, ensuring real-time dashboard updates.
- Demonstrates automation of processes and improving organizational efficiency
- Project Link: **GitHub**

### •CAREER-NEXUS: Candidate Matchmaker

Python, NLP, spaCy, Flask, scikit-learn

- Developed an NLP-powered resume-job matching system, achieving accuracy >95% top-3 accuracy with <3s inference time.
- Utilized Sentence-Transformer (all-MiniLM-L6-v2) and cosine similarity for robust matching; implemented resume lemmatization and entity extraction using spaCy.
- Built a web interface with Flask for job recommendations.
- Project Report: **Project Report**

## •Vehicle Detection using Hybrid Deep Learning Models

*Python, YOLO, Faster R-CNN, OpenCV, TensorFlow*

- Designed a hybrid object detection system by combining YOLO and Faster R-CNN to **enhance both speed and accuracy** for real-time vehicle recognition.
- Optimized the model for complex conditions such as traffic congestion and low visibility, achieving better detection performance.
- Project Report: **Project Report**

## •SonarGuard: Intelligent Radar System

*Arduino Uno, Ultrasonic Sensor, Servo Motor, C++, Processing 4*

- Built a real-time radar system using Arduino Uno, ultrasonic sensor, and servo motor to detect objects within range.
- Captured distance and angle data using sensor rotation logic, and transmitted data via serial communication.
- Designed an interactive radar-like UI using Processing 4 to visualize object positions in polar coordinates, applicable in security and automation for dynamic obstacle detection and spatial awareness.
- Project Report: **Project Report**

## ACHIEVEMENTS AND CERTIFICATIONS

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•**Data Structures & Algorithms (DSA):** Actively solved problems on platforms like LeetCode, Hackerrank and GeeksforGeeks, demonstrating a strong grasp of DSA and SQL query optimization.

### •Cloud & Database Certifications:

- HackerRank certification test for SQL(Basic): **CERTIFICATE**
- HackerRank certification test for SQL(Intermediate): **CERTIFICATE**
- HackerRank certification test for SQL(Advanced): **CERTIFICATE**
- MongoDB Database Administrator (Currently Pursuing)
- Earned the Leetcode **SQL 50** Badge
- AWS Cloud Architecting Course: **CERTIFICATE**
- AWS Cloud Foundations Course: **CERTIFICATE**
- Neo4j Certified Professional Course: **CERTIFICATE**
- Oracle Cloud Infrastructure 2025 Certified Generative AI Professional: **CERTIFICATE**

### •Programming & Networking Certifications:

- Cisco Certified Network Associate (CCNA): Essentials of C++ **CERTIFICATE**
- JavaScript Essentials 1: Cisco Networking Academy **CERTIFICATE**
- MATLAB Completion Certificate: **CERTIFICATE**
- Oracle Certified Professional: Java SE 17 Developer: **CERTIFICATE**
- Oracle Cloud Infrastructure 2025 Certified DevOps Professional: **CERTIFICATE**

•**Hackathon Participant:**(NGC Club, VIT AP) Actively participated in coding hackathons, contributing to team projects and problem-solving.

## EXPERIENCE

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### •Web Development Intern (Onsite Internship)

*Adamas Tech Consulting*

*Duration: 1 month*

*Kolkata, West Bengal*

- Focused on web development and file system using Excel.
- Developed features to enhance web application functionality and improve UX.
- Project Report: **Link**
- Internship Completion Certificate: **CERTIFICATE**

## POSITIONS OF RESPONSIBILITY

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•**Content Team Lead**Geeks For Geeks (GFG), VIT AP Student Chapter

•**Core Member**NSS Club, VIT AP