

# Sakshi Tiwari

(+91)9229773926 | [sakshit9703@gmail.com](mailto:sakshit9703@gmail.com) | [linkedin.com/in/sakshi](https://linkedin.com/in/sakshi) | [github.com/sakshi](https://github.com/sakshi)

## EDUCATION

### Visvesvaraya Technological University

Bangalore, India

*Bachelor of Engineering in Computer Science (GPA: 9.25/10)*

2022 – 2026

### Technical Coursework:

*Computer Network, Data Structures & Algorithms, Machine Learning, Operating Systems, DBMS, Artificial Intelligence, Web Development, Big Data Analytics, Cloud Computing*

## EXPERIENCE

### Undergraduate Research Assistant

January 2024 – April 2024

*MS Engineering college*

*Bangalore*

- Built an AI-powered heart rate analytics pipeline (Python, TensorFlow) to predict athlete performance with ~90% accuracy.
- Explored ways to visualize GitHub collaboration in a classroom setting

### SBE Tech – Web Development Intern

May 2025 – June 2025

*Remote*

- Developed and deployed responsive React-based web modules improving client site load time by 35%.
- Optimized database queries (PostgreSQL) for dynamic content, reducing response latency by ~20%.

## PROJECTS

### Real-Time Open Vocabulary Object Detection App | *Python, PyTorch, YOLOv8, OpenCV, CLIP, NumPy*

- Developed a real-time object detection application integrating YOLOv8 with CLIP for open-vocabulary classification across 500+ labels.
- Optimized inference pipeline (ROI filtering, temporal smoothing) to achieve 25 FPS on CPU.
- Designed GUI-based camera capture with fallback modes for real-time inference 10 FPS.

### Minimal Neural Radiance Field System | *REST API (Flask), Three.js, Docker, Python, PyTorch*

- Developed end-to-end system to reconstruct 3D scenes from 2D images for real-time (30–60 FPS) WebGL visualization.
- Implemented REST API backend with dataset-to-training pipeline using ffmpeg and COLMAP.
- Integrated CI/CD with GitHub for automated testing and deployment.
- Collaborated with Minecraft server administrators to suggest features and get feedback about the plugin

### Real-Time Crypto Data Pipeline | *Python, Kafka/Redpanda, Docker, PostgreSQL*

- Designed a scalable networked data pipeline ingesting 5K+ trade events/sec from WebSocket streams.
- Engineered data transformation layer generating OHLCV candles stored in PostgreSQL for analytics.
- Containerized full stack using Docker Compose ensuring consistency, low latency, and fault tolerance.

## TECHNICAL SKILLS

**Languages:** Python, Java, C, C++, JavaScript, HTML/CSS, SQL

**Developer Tools:** Git, Docker, Google Cloud Platform, VS Code, AWS, Visual Studio, PyCharm, IntelliJ, Eclipse

**Libraries:** PyTorch, TensorFlow, OpenCV, Scikit-learn, Pandas, Matplotlib

## CERTIFICATIONS

**Introduction to Generative AI:** Google

**Big Data 101:** IBM

## EXTRACURRICULAR

- **Participated in Yandex cup** 2025
- **Competitive Programming:** Solved 100+ problems across LeetCode, Codeforces, and HackerRank; actively improving algorithmic problem-solving skills.
- **Tech Fest - Organizing Member** 2023–2024
- **NSS Volunteer** 2022– 2024