

# VENKATESH BADIGER

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## Profile Summary

Aspiring **AI and Data Science Engineer** with hands-on experience in full-stack web development, secure communication systems, and applied machine learning. Passionate about building scalable, intelligent, and privacy-preserving software solutions.

## Education

**Ramaiah Institute of Technology (MSRIT), Bengaluru**

2022–2026

B.E. in Artificial Intelligence and Data Science

CGPA: 8.0 (till 6th semester)

Roles: MSRIT Quiz Club — Club Coordinator, NSS MSRIT — Core Member

## Experience

**Intra-Institutional Internship, MSRIT**

2023

*Hybrid Web Development (Frontend focus)*

- Built responsive UI components and optimized load performance and accessibility.
- Integrated REST APIs and implemented client-side routing and state handling.
- Collaborated with a small team using Git/GitHub and agile code reviews.

## Projects

**Secure Messaging System with AES-256 Encryption**

2025

*JavaScript, Firebase, Web Crypto*

- Developed a real-time messaging platform with end-to-end encryption using AES-256.
- Implemented client-side key handling and temporary room lifecycle management to ensure confidentiality.
- Delivered a lightweight UX leveraging Firebase Realtime Database for fast message delivery.

**Radar Rescuer — Disaster Management Companion**

2024

*YOLOv8, Custom Dataset, React, Geolocation*

- Trained a YOLOv8 model on a self-annotated dataset to detect trapped humans in debris.
- Integrated GPS tracking to display detected coordinates on an interactive React-based map.
- Built a working prototype demonstrating real-time detection and geolocation visualization.

**AI-Powered Video-to-Text Translator**

2023

*Python, Whisper, Helsinki NLP, Hugging Face, Google Colab*

- Automated transcription and multilingual translation of video speech with live subtitle generation.
- Implemented end-to-end translation workflow with language detection and accessibility focus.

## Technical Skills

**Programming:** Python, C, Java

**Web:** HTML, CSS, JavaScript, React, SQL, Firebase

**Tools:** Git, GitHub, VS Code, Jupyter Notebook, Google Colab

**Core Areas:** Machine Learning, Artificial Intelligence, Computer Vision, Data Science, Cloud Computing, Software Engineering

## Achievements

- **SAP Labs National Hackfest Finalist (2024):** Finalist (Top 20/1000+) for developing an AI concept using GPR for disaster rescue.
- **Smart India Hackathon (2024):** Contributed innovative technical solutions addressing real-world government problem statements.

## Certifications (NPTEL)

- **Cloud Computing (IIT Kharagpur)** — Prof. Soumya Kanti Ghosh
- **Computer Vision and Image Processing: Fundamentals and Applications (IIT Guwahati)** — Prof. M. K. Bhuyan
- **Data Science for Engineers (IIT Madras)** — Prof. Ragunathan Rengasamy