

MEENAKSHI S MENON

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EDUCATION

- **VIT Bhopal University, Madhya Pradesh** (August, 2022- pursuing)
B. Tech in Computer Science and Engineering- Artificial Intelligence and Machine Learning | CGPA: 9.12
- **Gregorian Public School** (May, 2022)
Higher Secondary(CBSE) | Percentage: 92%

SKILLS

- **Programming Languages:** Python, Java, SQL
- **AI/ML & Libraries:** TensorFlow, Scikit-learn, OpenCV, Numpy, Pandas
- **Tools & Platforms:** Git, GitHub, VS Code, PyCharm, Jupyter Notebook, Command Line
- **Core Competencies:** Data Structures & Algorithms (DSA), Object-Oriented Programming (OOP), Model Training & Evaluation, REST APIs

PROJECTS

Aura AI – Generative Voice Assistant (Dec, 2024)

Python, Mistral AI, Speech Recognition, macOS Automation

- Developed a voice-activated chatbot using Mistral-Tiny model to generate intelligent and context-aware responses.
- Enabled speech input recognition and macOS system-level command execution via voice (e.g., open apps/websites).
- Integrated auto-saving of AI-generated content as structured .txt files for offline reference.
- Implemented modular architecture supporting TTS using macOS say command and future scalability.

TalkUp – Real-Time Chat Application (June, 2025)

React, Node.js, Express.js, MongoDB, Socket.IO, Tailwind CSS

- Engineered a full-stack real-time chat application with secure user authentication and persistent messaging.
- Built the backend using Node.js, Express, and MongoDB, with **Socket.IO** enabling instant bi-directional communication.
- Designed RESTful APIs for user registration, login, and message operations.
- Developed a responsive React-based frontend integrated with the backend for live messaging and chat history retrieval.
- Styled the interface using **Tailwind CSS**, ensuring a clean, mobile-friendly user experience.

Agriguard Rover – AI-Powered Agricultural Rover (April, 2025)

Python, TensorFlow, OpenCV, CNN, DenseNet121, ResNet50, Xception

- Developed an AI-powered rover capable of detecting paddy leaf diseases with high precision.
- Experimented with multiple deep learning models (CNN, ResNet50, Xception), and selected **DenseNet-121** based on superior performance (achieved **95% accuracy**).
- Preprocessed leaf images using OpenCV and trained the final model using TensorFlow for real-time deployment.

CERTIFICATIONS

Applied Machine Learning in Python – Coursera | Privacy and Security in Online Social Media – NPTEL (IIT) | IBM Blockchain Developer | IBM Blockchain Fundamentals | IBM GenAI using Watsonx | MATLAB Simulink Onramp | Python Essentials – Vityarthi | Deep Reinforcement Learning Made Easy – Udemy

ADDITIONAL

- **Languages:** Fluent in English and Malayalam; Conversational in Hindi
- **Leadership Role:** Student Coordinator, Malayalam Club (Nov 2022 – Present) – Led planning and execution of multiple cultural programs, managing budgeting, logistics, PR, and team coordination.
- **Strengths & Interests:** Public speaking, event management, budgeting, people management, creative planning, and team leadership.