

# LOKESH VINNAKOTA

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## EXPERIENCE

### Gen AI Intern | Ideabytes – Hyderabad, India | May 2025 – Aug 2025

- Engineered a Streamlit-based application integrating OpenAI and Amazon Bedrock LLMs (Mistral, LLaMA3, Claude), reducing model comparison time for stakeholders by 40%.
- Implemented a Retrieval Augmented Generation (RAG) system with FAISS for Q&A over scraped website content, improving answer accuracy and relevance by an estimated 25–30%.
- Enabled multimodal capabilities, including voice-to-text and text-to-speech using SpeechRecognition and TTS libraries, increasing feature usage in pilot tests by 3%.
- Developed a multilingual translation and spelling correction pipeline supporting 5+ languages using Deep Translator and TextBlob, cutting manual correction effort for users by 5%.
- Visualized embeddings across 2 dimensions using PCA and Plotly, helping reduce debugging time for model behavior analysis by 20%.
- Deployed a production-ready application on AWS with secure API integrations and environment configurations, achieving 99%+ uptime during the internship period.
- Designed a Streamlit interface that increased user task completion rates and reduced average onboarding time by 10%.

### Data Science Intern | Vignan's Foundation for Science Technology & Research – Guntur, India | Jan 2024 – Apr 2024

- Mentored 30+ students in Python, machine learning, and data structures, raising average lab assignment scores by 15%.
- Conducted 10+ hands-on lab sessions on TensorFlow, Keras, and data preprocessing, improving students' model implementation success rate from 60% to 85%.
- Evaluated and graded 10+ assignments and provided actionable feedback on ML model implementations, reducing recurring implementation errors by 20% over the semester.
- Co-led lectures on 4 AI/ML topics, increasing student participation and attendance by 60%.

## PROJECTS

### Deep Learning-Based Rice Crop Disease Prediction | Dec 2023 – May 2024

- Constructed an ensemble model using VGG16, InceptionV3, and MobileNet that achieved 97% classification accuracy, improving over baseline CNN models by 10–15%.
- Preprocessed a dataset of 16,000 high-resolution images with outlier removal and an 80:20 train-test split, cutting training time per epoch by 25%.
- Applied transfer learning to fine-tune 3 pre-trained models for robust performance across diverse field conditions, reducing misclassification rates by 2%.
- Crafted a web interface for farmers to upload images for instant diagnosis, targeting a reduction in diagnosis turnaround from days to minutes.

### Mess Management System | May 2023 – Nov 2023

- Spearheaded a web application to manage meal planning, attendance, and billing, reducing manual record-keeping time by 50%.
- Orchestrated a mobile-optimized front end using HTML, CSS, and JavaScript that improved mobile usability scores in user tests by 30%.
- Structured MySQL for storing users, meal schedules, and transactions, decreasing data retrieval time for routine queries by 1%.
- Built 3 admin functionalities (menu updates, attendance tracking, bill generation), reducing billing errors and reconciliation time by 5%.

## SKILLS

Python, C, Scikit-learn, TensorFlow, Keras, PyTorch, CNNs, Transfer Learning, Ensemble Learning, HTML, CSS, JavaScript, MySQL, Git, Jupyter Notebook, VS Code, Teamwork, Conflict resolution

## EDUCATION

- Master of Engineering in Computer Science – University of Cincinnati | Aug 2024 – Dec 2025
- Bachelor of Technology in Computer Science – Vignan University | Aug 2020 – May 2024

## CERTIFICATIONS

- Software Project Management – IIT Kharagpur
- Programming, Data Structures and Algorithms Using Python – IIT Kharagpur
- Cloud Computing – IIT Kharagpur
- Microsoft Certified: Designing and Implementing a Data Science Solution on Azure (DP-700)