

VIVEK REDDY ELUKA

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Summary

Master's student in Computer Science specializing in Artificial Intelligence. Experienced in machine learning, deep learning, natural language processing, and full-stack development, with hands-on work in research, real-world projects, and model deployment. Proficient in Python, Java, C, Kotlin, and modern AI frameworks, with a proven ability to learn quickly, solve complex problems, and work effectively in collaborative environments.

Skills

Python, Java, C, HTML, CSS, JavaScript, NodeJS, Flask, LangChain, TensorFlow, Hugging Face, Gradio, FAISS, Machine Learning, Deep Learning, Natural Language Processing, Large Language Models, Retrieval-Augmented Generation (RAG) Systems, Web Applications, Model Integration, Data Processing, Communication, Teamwork, Problem Solving.

Education

Arizona State University <i>Master of Science in Computer Science</i>	Tempe, AZ, USA <i>Jan 2026 – Present</i>
CVR College of Engineering <i>B.Tech in Artificial Intelligence and Machine Learning, CGPA: 8.16</i>	Hyderabad, TS <i>Nov. 2021 – Apr 2025</i>

Research Work

Multi-Attention and Quantization-Aware YOLO Framework for Real-Time Surface Defect Detection on Edge Devices 📄 | *Research Paper (Draft – Not Yet Published)* *Aug 2025*

- Built an enhanced YOLOv11-based object detection model using attention mechanisms to improve detection of small surface defects.
- Prepared and unified multiple industrial defect datasets by cleaning annotations and applying data augmentation techniques.
- Obtained 91.3% mAP@0.5 with stable validation performance, showing strong generalization across defect categories.

Projects

AskTheSite: Website QA Chatbot 📄 | *LangChain, Together.ai, FAISS, Gradio* May 2025


- Built a RAG-based chatbot enabling natural-language question answering over any public website using LangChain, FAISS, and Mistral-7B.
- Implemented automated web scraping and document chunking, and deployed an interactive Gradio interface on Hugging Face Spaces.

WrapIt: Text Summarizer 📄 | *Transformers, Hugging Face, Gradio* April 2025

- Developed an abstractive text summarization system using T5 and BART models with support for text, PDF, and URL inputs.
- Designed and deployed a responsive Gradio application providing real-time, customizable summaries on Hugging Face Spaces.

AIroma: Smart Café Chatbot 📄 | *Flask, Ollama, JavaScript* Feb 2025


- Built a domain-specific chatbot to manage food orders, table availability, and FAQs using lightweight LLMs via Ollama.
- Integrated real-time menu recommendations and order tracking through a Flask-based backend and REST APIs.

OCR and Document Search Web Application  | *EasyOCR, OpenCV, Gradio* Sep–Oct 2024

- Implemented a bilingual OCR pipeline with layout-aware text extraction using OpenCV and EasyOCR.
- Enabled keyword search with visual highlighting and deployed the application on Hugging Face Spaces.

InnSight: Immersive Hotel Booking Website | *Flask, OpenCV, MediaPipe, MongoDB, Socket.IO* August 2024

- Developed a gesture-controlled hotel booking platform with 360° panoramic room exploration using MediaPipe and OpenCV.
- Implemented secure authentication, booking workflows, and real-time communication using MongoDB and Socket.IO.

EEG Classification Using EEGNet  | *EEGNet, MNE, TensorFlow, Python* July 2024

- Preprocessed EEG signals using MNE and trained an EEGNet-based deep learning model for motor imagery classification.
- Improved model performance using regularization, early stopping, and learning rate scheduling.

Achievements

GATE DA (Data Science & AI): Secured AIR 2368 in 2025

GRE General Test: 170 Quant (92nd percentile), 152 Verbal (48th), 4.0 AWA (59th), Feb 2023

IELTS Academic: Overall Band 7.0 (Listening 7.0, Reading 8.0, Writing 6.5, Speaking 6.5), CEFRL Level C1, Jan 2025

AS Rao Science Olympiad : Topper at centre-level for Science Olympiad Exam, 2018

NPTEL Cloud Computing Certification: Completed with distinction, achieving 85%

Creators of Metaverse: Successfully created an effect using Meta Spark Studio, October 2023

JEE MAINS Percentile: 97, 2021

EAMCET Rank: 3368, 2021

Positions

Student Member: Computer Society of India (CSI)

- Organized workshops conducted by CSI