

Name : Venkata Sai Ancha

Ph.no : +1-401-376-7625

Email : venkatasaiancha24@gmail.com

Professional Summary:

- **AI Engineer** with expertise in LLMs, Machine Learning, and Computer Vision, specializing in Agentic AI solutions and RAG architectures.
- Proficient in Python, Java, SQL, and C++, with experience in LangChain, LangGraph, deep learning, NLP, and real-time computer vision.
- Skilled in cloud platforms (GCP, AWS, Azure), DevOps tools (Docker, Kubernetes, CI/CD), and database management (SQL, NoSQL, Vector, Graph DBs).
- Developed automation tools for AI agents, long-term memory models, and scalable applications for AI-driven solutions.
- Published research in IEEE Explore, certified in Machine Learning, NLP, and Data Science, and mentored students as a Graduate Teaching Assistant.

Technical Skills:

Programming Languages	Python, Java, C/C++, SQL
Machine Learning & AI	Large Language Models (LLMs), RAG, LLM Agents Computer Vision (OpenCV, YOLO, Optical Flow, Haar cascades) NLP (spaCy, NLTK, Transformer Models) Deep Learning (TensorFlow, PyTorch)
Databases	SQL (MySQL, PostgreSQL, SQLite) NoSQL (MongoDB, Firebase) Vector Databases (Chroma, Pinecone) Graph Databases (Neo4j)
Cloud & DevOps	Google Cloud Platform (GCP), AWS, Azure Docker, Kubernetes, CI/CD (Jenkins, GitHub Actions)
Data Processing & ETL	Apache Spark (PySpark, SparkSQL) Apache Beam, Databricks Data Cleaning & Transformation (Pandas, NumPy)
Software Development & Tools	LangChain, LangGraph for LLM Agentic Frameworks API Development (FastAPI, Flask, REST) Version Control (Git, GitHub, GitLab) Agile Methodologies (Scrum, Jira)
Visualization & Reporting:	Matplotlib, Seaborn, Plotly Power BI, Tableau, Google Data Studio Jupyter Notebook, Excel (Pivot Tables)
Workflow & Automation:	Apache Airflow, Automation Tools for AI Agents

Professional Experience:

AI Developer

ImageVision.ai LLC, United States

jan 2025 – Present

- Developing Agentic based solutions using LLMs and LLM Agents..
- Using LLM Agentic frameworks (like, langchain, langgraph) develop multiple LLM agents
- Develop RAG Agents using vector and graph databases
- Developing Tools for LLM Agents
- Develop long term memory for LLM Agents
- Develop LLMs integration for LLM Agents
- Develop development environment tools and automation tools to deliver and support customers

AI Developer

SS Tech LLC, United States

July 2024 – jan 2025

- Design and develop applications in JAVA, test the functionality and performance, deploy to servers, and resolve technical issues that may arise post-deployment.
- Use various tools such as Eclipse for coding, SonarQube for code quality checks, Git for version control, JIRA for task tracking and coordinating with teams for seamless collaboration and deployments across Windows and Linux environments.
- Create, Store, and Query the database for data and use it for different purposes in the business application.
- Parse the API response data from different formats like JSON and XML.
- Use basic operating system concepts like multi-threading, concurrency, and synchronization to parallelize the tasks and improve the application performance.

Graduate Teaching Assistant

SUNY New Paltz, United States

January 2024 – May 2024

- Assisted in grading assignments, quizzes, and exams for the Language Processing course.
 - Conducted weekly discussion sessions and office hours to clarify NLP concepts.
 - Provided one-on-one tutoring on syntax analysis, semantic processing, and machine learning for NLP.
 - Guided students through hands-on projects involving Python, NLTK, spaCy, and deep learning models.
 - Collaborated with **Professor Ashely Suchy** to enhance course materials and improve student learning outcomes.
-

Academic & Personal Projects:

AI-Powered Soccer Match Analysis Using Computer Vision and Machine Learning

- Developed an advanced soccer match analysis system using computer vision and machine learning.
- Used **YOLO** for real-time **object detection** and **tracking** of players, referees, and soccer balls.
- Implemented **K-Means clustering** to assign players to teams based on t-shirt colors.
- Calculated **ball possession** percentage, **player movement**, **speed**, and **distance covered**.
- Applied **optical flow** and perspective transformation for accurate movement representation in meters.

Real-Time Video Processing with Computer Vision Filters and Object Detection

- Developed a **real-time video processing system** integrating multiple **computer vision filters**.
- Implemented **face and eye detection** using **Haar cascades** and **AdaBoost** for object recognition.
- Integrated various image processing techniques, including **grayscale**, **thresholding**, **Sobel**, **Canny edge detection**, and **Gaussian blur**.
- Enabled dynamic **HSV-based skin detection and filtering** for enhanced feature extraction.
- Designed an interactive **video filter application** allowing users to switch between filters using keyboard inputs.

User Feedback Management System with Web and Database Integration

- Developed a **user-friendly web application** for storing and managing user feedback.
- Designed and implemented **Login, Register, and Note pages** using **HTML, CSS, and JavaScript**.
- Integrated **database management** for user authentication and feedback storage.
- Enabled **automatic redirection** from **registration to feedback submission** for a seamless user experience.
- Implemented **session-based authentication** to allow users to log in, view past feedback, and submit new feedback.

Education:

Master of Science in Computer Science

August 2022 - May 2024

State University of New York at New Paltz, NY

Bachelor of Technology in Computer Science and Engineering

August 2018 - May 2022

Koneru Lakshmaiah University, India

Certification and Publications:

- Multi AI Agent Systems with crewAI
 - Self-Driving Cars Specialization
 - Natural Language Processing Specialization
 - IBM Data Science Specialization
 - Mathematics for Data Science Specialization
 - Statistics with Python Specialization
 - Flower Identification and Classification applying CNN through Deep Learning Methodologies *(IEEE Explore)*
-

GITHUB : <https://github.com/avsai24/>

LinkedIn : <https://www.linkedin.com/in/venkatasaiancha/>