

SHASHANK SRIVASTAVA

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EDUCATION

Harcourt Butler Technical University

2024

Bachelor of Technology - Electronics and Communication

Little Flower House

2019

Intermediate (CBSE) (PCM)

EXPERIENCE

AI Developer

Gurugram

Intelligen AI (FULL TIME)

Jan 2024 - Present

- Built and delivered an AI Agents framework orchestrated through **Model Context Protocol (MCP)**, enabling multi-step reasoning and tool invocation for complex diagnostic workflows in large-scale industrial plants. Developed MCP servers to host tools as services, integrated with **LangGraph**-based multi agent program.
- Designed a scalable, queue-based REST API for a document intelligence system using NLP and classification techniques. Achieved 99% classification and 90% extraction accuracy across **500K+** processed documents.
- Developed and deployed scalable AI models on multi-cloud environments including **AWS**, **Azure**, and **GCP**; containerized services using **Docker** and **Kubernetes**, and implemented automated **CI/CD pipelines**.
- Built LLM-driven chatbots using advanced **RAG** architectures, leveraging optimized chunking and retrieval strategies (**Hybrid search**, **Reciprocal Rank Fusion**). Deployed and integrated **MCP** tools for LLM-driven query-specific context retrieval, improving accuracy and enhancing user interactions.
- Designed and implemented asynchronous backend systems with **FastAPI** and **Celery**, deploying on cloud platforms with **Apache load balancing** to ensure scalability and high availability.
- Delivered AI-powered vision applications using **YOLO**, **SAM**, and **Gemini** frameworks for defect identification in refinery industries, and fine-tuned object detection models (**YOLO**, **Grounding Dino**) for online proctoring systems to enhance security and accuracy.
- Developed custom facial analysis modules leveraging **Dlib** and **RetinaNet** for facial landmark detection, yaw-roll estimation, and face comparison in security contexts.

SKILLS (LANGUAGES AND FRAMEWORKS)

Python (Libraries:: Pandas, NumPy, Matplotlib, **Computer Vision (OpenCV)**), LangChain, Langgraph , Scikit-learn , PySpark, PyTorch, TensorFlow, Keras, FastAPI, **MLOps**, **Azure** , **AWS** , **GCP**, Power BI , SQL (PostgresSql , MySql) , Redis , celery, RabbitMq , Flask, Playwright .

PROJECTS

Source Code Converter | *Generative A.I (LLM), Python, Streamlit*

April 2024

- Made a 'Source Code Converter' utilizing **LLM (GEN AI)** and **Prompt Engineering** techniques for accurate source code conversion to target programming language with conversion accuracy scores.
- Designed an user-centric interface on **Python Streamlit** for file uploads , function name and target language specifications, showcasing final code and Conversion accuracy with an overall 90% accuracy metrics.

Image Caption Generator | *DeepLearning, python,NLP,computer-vision, LSTM*

October 2023

- Preprocessed** FLICKR8K dataset using **data cleaning** and image **feature extraction** with VGG-16.Integrated captions and features and used **LSTM** models optimized for effective learning.
- Predictive analysis** on test data, evaluating caption accuracy with **BLEU** scores and comparing machine-generated text with human references for validation.

Custom Segmentation model | *SAM, YOLO V8, Python, Deep Learning.*

March 2024

- Implemented **YOLO V8 (SOTA)** for object detection, delineating boundaries,and Leveraged the **SAM model** for precise **semantic segmentation** from images, achieving a remarkable 95% accuracy.

Face Recognition Model | *Deep learning, image classification , OpenCV , Python*

July 2023

- Utilized celebrity images and names to create a personalized dataset for model training. Employed OpenCV and Haar Cascade Classifier to detect faces, extracted features, and model building, achieving an accuracy of 80% .