Satya Shah

Mail-satyashah26102001@gmail.com | M:(+1)6824039713 | LinkedIn | GitHub

INTERNSHIPS:

-AI Task Analyst, Matrices, California, USA   *September 2025 –Present*
- Designed and executed *50+ AI training tasks* for Gmail, Amazon, Slack workflows, directly improving data quality and advancing model development for **OpenAI** and **Anthropic**.
- Performed *Quality Assurance on 100+ tasks*, ensuring high-quality data generation and alignment with project requirements.
- Applied **prompt engineering** techniques and **JSON** structuring to build, test, and refine task instructions for accuracy and consistency.
- Identified and documented **bugs and edge cases**, contributing to improved task reliability and a **20%** reduction in rework cycles.

-Computer Vision Intern, Technostacks Infotech Private Limited, Ahmedabad, India [*link*]   *January 2023–May 2023*
- Developed a web app for *CT-scan-based kidney tumor detection* for a hospital using **transfer learning (VGG16** with **Tensorflow/Keras)**, achieving *98% recall* and assisting doctors in the early diagnosis of kidney cancer for **500+ patients.**
- Built a complete ML pipeline from data ingestion to model evaluation using version control tools like **DVC**, **Dagshub**, and **MLFlow**.
- Preprocessed the images using Otsu's Binarization, Watershed segmentation, and Normalization. Handled class imbalance by **data augmentation**.
- Developed a user interface using **HTML, CSS, JavaScript, Flask** for routing, and **MongoDB for storing** patient records.
- Containerized the entire application using **Docker**. Deployed the app on **AWS using CI/CD with GitHub Actions, ECR,** and **EC2**.

PROJECTS:

-Data Talk: Query Without Code [*link*]   *July 2025*
- Enables users to connect their *local* **Neo4j Graph DB, SQL, or SQLite** databases and query them using basic *English sentences without writing any queries*, reducing query-writing effort by *80%.*
- Uses **prompting techniques** for efficient query generation with **Langchain agents** for accurate responses.
- **Deployed** on **Streamlit**, offering a user-friendly **interface** for seamless database interactions.

-Chat summarizer by Fine-tuning [*link*]   *April 2025*
- Enhanced *AI-driven chat summarization*, transforming *lengthy conversations into clear, concise insights*.
- *Fine-tuned* **Google Pegasus (CNN/Daily Mail)** on the **Samsum dataset**, optimizing for chat-based text summarization.
- Achieved high-quality performance and developed UI **using Flask, HTML, CSS, and JavaScript** for seamless user interaction.
- Exploring **quantization** techniques **like *LoRA* and *QLoRA*** for efficient model deployment.

-PEDIABOT AI For Pediatricians [*link*] [UTA'25 DATATHON WINNER]   *March 2025*
- Developed an AI-powered *RAG*-based chatbot for *pediatricians*, offering instant, context-aware medical insights to support clinical decisions with an *average response time under 3 seconds*.
- Integrated **Pinecone Vector Database, Hugging Face embeddings, and Groq's Mistral LLM**, enhancing retrieval accuracy and response quality.
- Containerized with the help of **Docker and deployed** the application on **Hugging Face Spaces** using **GitHub Actions (CI/CD)**, featuring a user-friendly interface with **HTML, CSS, and JavaScript**.

-AI MOCK Interview Agent (Voice Based) [*link*]   *January 2025*
- Developed a *personalized AI-powered interview agent* for real-time mock interviews based on resume & job description.
- Used **Eleven Labs API** for text-to-speech, **OpenAI API** for question generation and real-time feedback, **Google Web Speech API** for transcription.
- Created wonderful UI using **Streamlit** with features like front camera, voice recording, and round-based selection (HR, Managerial, Technical, General).

TECHNICAL SKILLS:

Data Science/Machine Learning/ Deep Learning/ Computer Vision/NLP – Supervised Learning algorithms, Unsupervised Learning algorithms, statistics, Exploratory Data Analysis, ANN, CNN, RNN, Transformers
Programming languages - Python, SQL, HTML, CSS, JavaScript, TypeScript, React
Frameworks- Flask, Streamlit, Gradio, FastAPI, GitHub, Docker, Kubernetes, Langchain, LangGraph, Hugging Face, CrewAI, Autogen, Ollama
Databases- MySQL, MongoDB, Pinecone, Neo4j, FAISS, Chroma DB
Data Visualization- Tableau, Excel
Python packages and Libraries- Scikit-Learn, TensorFlow, Keras, PyTorch, NumPy, Pandas, SciPy, Seaborn, Matplotlib, OpenCV, Optuna

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EDUCATION:

-Masters of Science (MS), Computer Science,   *August 2023- May 2025*
University of Texas, Arlington, Texas, United States of America, GPA (3.9/4.0)

-Bachelor of Technology (BTech), Computer Science,   *August 2019- May 2023*
School of Engineering and Applied Science, Ahmedabad University, Gujarat, India

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-Soft Skills: Strong problem-solving skills, excellent written and verbal communication skills, adaptability, Teamwork, critical thinking, time management, and attention to detail
-Kaggle Competition [*link*]- Participated in a Kaggle competition on *mushroom edibility prediction*, leveraging machine learning for binary classification of **1 million rows**. Achieved a *top 25% leaderboard ranking* among 2500 participants.