

Shivam Ardeszna

Python Developer | ML Engineer | Data Analyst | Cloud Practitioner

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Experience

AGEVOLE INNOVATION PVT. LTD.

Machine Learning Engineer

April 2024 – July 2024

Ahmedabad, Gujarat, India

- Developed a news recommendation system using content-based filtering, leveraging NLP to extract keywords and topics, which increased recommendation accuracy by 25%. Collaborating with a team, we refined the model for real-time performance, resulting in a 20% boost in user engagement.

HELICONIA

Software Development Engineer

May 2023 – September 2023

Rajkot, Gujarat, India

- Designed a file converter website using Flask, which boosted conversion efficiency by 30% and reduced processing time by 20%, significantly enhancing the user experience. Through this project, I gained hands-on experience in Python, refining my skills in both back-end and front-end development.

Education

Charotar University Of Science And Technology

Bachelor of Technology in Computer Engineering

September 2021

Anand, Gujarat, India

Shakti School

Higher Secondary Education - (92%)

2019 – 2021

Rajkot, Gujarat, India

Projects

Real Time Chatbot(QuikAI) | Selenium | Django

- Engineered QuikAI, a real-time voice-activated chatbot using Selenium Chromium driver, processing user queries with 95% accuracy. Implemented advanced speech recognition for seamless interaction, enabling users to receive responses 20% faster than traditional text-based searches.
- QuikAI intelligently searches online resources to provide relevant information in seconds, representing a significant advancement in voice-enabled internet searching. The project bridges the gap between voice queries and instant access to accurate information, and better user satisfaction.

Q&A PDFquery(QueryMaster) | Pinecode | LLM

- Created a PDF querying system using LLM, PineCode, Streamlit, and LangChain, improving data retrieval efficiency by 30%. The system allows users to input PDF documents and interactively query information with natural language prompts. Integrated LLM for language understanding and LangChain for efficient data retrieval, reducing response time by 25%.
- Enabled real-time answers about PDF content, showcasing advancements in PDF data extraction and natural language processing integration. The project demonstrates innovative use of language models for efficient data retrieval, setting a new standard in PDF querying.

Multimodal-VideoRAG | VLM | LanceDB

- Crafted an innovative system to extract and analyze video content frame by frame. Each frame is captioned using an AI-driven model, providing detailed scene descriptions. These captions, along with frame data, are stored in LanceDB, a multimodal vector database.
- The system integrates the VLMConversationalBot, enabling interactive conversations based on specific frames. Users can prompt the bot to describe the contents of any frame, offering deeper insights into video analysis. This combination of video and language processing enhances the understanding and retrieval of video content.

AI Narrator | LLM | Vision

- AI Narrator is a real-time frame narration tool, developed to enhance live event coverage, such as sports, increasing viewer engagement by 60%. This system delivers insights on strategies and statistics, narrating 30 frames per second, and reduces viewer comprehension time by 50%, providing an immersive experience.

Mouse Tooltip Translator | Flask | Javascript

- Designed a browser plugin for real-time translation, increasing user engagement by 40%. Users can translate text by simply hovering over the content and selecting the desired language. AccomplishedImplemented intuitive controls for easy language selection and instant translation, reducing translation time by 50%.

- Successfully deployed the plugin on Chrome, offering users instant multilingual comprehension while browsing online content. The project enhances the browsing experience by removing language barriers and providing seamless, on-the-fly translations without additional steps.

File Convertor | Django | ReactJs

- As an Intern at Heliconia, collaborated on a project that increased file conversion efficiency by 30%. Worked with Django and ReactJS, the system supports tasks such as text extraction and resizing, enhancing user flexibility.
- The robust architecture allows for easy addition of new features, laying a foundation for scalability and future growth. The project demonstrates the ability to produce efficient, user-friendly file conversion solutions that adapt to evolving user needs.

Publications

- **Evaluating the Efficacy of Diverse Classifiers in Fake News Detection: A Comparative Study**, *International Conference on Information and Communication Technology for Competitive Strategies (ICTCS-2024)*
- **Enhancing Deep Fake Image Generation and Detection through Transfer Learning**, *International Conference on Artificial Intelligence, Computing Technologies, Internet of Things (IoT) and Data Analytics (AICTA-2024)*
- **Improving item based collaborative with Vision Transformers to address data sparsity issue**, *International Conference on Information and Communication Technology for Competitive Strategies (ICTCS-2024)*

Articles

Seeing is Believing: How Recommendation Systems Are Learning to See | *AI Advances*

- This article examines how visual recognition enhances recommendation systems by integrating image analysis, allowing for more personalized and relevant suggestions.

Vision Transformers: Demystifying the Latest Breakthrough in Image Recognition | *The Modern Scientist*

- This article clarifies Vision Transformers (ViTs) and their advantages in image recognition, highlighting recent advancements and future trends in the field.

Certificates

- Google Data Analysis
- Python Core
- AWS Cloud Training
- Statistics for Machine Learning
- Create Your First Web App with Python and Flask

Skills

Technologies: Deep Learning, NLP, Computer Vision, Database Management

Tools: HuggingFace, Docker, GIT, Textract, Oracle

Languages: Python, C++, JavaScript, NodeJS, MongoDB, ReactJS, Selenium

Frameworks: PyTorch, Django, Langchain, Flask, TensorFlow, Transformers, MERN, FastAPI, Express.js