

PRASHANT SAHU

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SUMMARY

AI/ML enthusiast with hands-on experience in NLP, deep learning, and GenAI, specializing in RAG pipelines, LLMs, and scalable ML systems. Built and deployed real-world applications using LangChain, LLaMA, Qdrant, Gemini, and Docker. Strong foundation in graph theory, computer vision, and cloud-based ML solutions. Passionate about leveraging AI to solve real-world challenges.

EDUCATION

- Master of Technology in CSE (AI & DS) — KIIT University, Bhubaneswar CGPA: 8.33(current)
- Bachelor of Technology in Computer Science and Engineering — SSTC, Bhilai CGPA: 8.9

TECHNICAL SKILLS

- Languages:** Python, SQL
- Libraries & Frameworks:** Pandas, NumPy, Scikit-learn, Keras, TensorFlow, XGBoost
- GenAI & NLP:** LangChain, Transformers, RAG, LLaMA, BERT, Tokenization, NER
- Visualization & Dashboards:** Seaborn, Matplotlib, Power BI
- Deployment & Tools:** Flask, Docker, Streamlit, Git, VSCode, Linux, Jupyter Notebook
- Cloud & Databases:** AWS, MySQL, Qdrant

WORK EXPERIENCE

IIT Bhilai— Research Intern (Graph Theory) Python, GeoPy, OSMnx, NetworkX, GeoPandas, Matplotlib April 2024 - June 2024

Analyzed 1000+ healthcare centers across Chhattisgarh using NetworkX and GeoPandas.
Mapped road-health networks via OSMnx and GeoPy to visualize spatial connectivity and identify critical nodes.
Applied centrality measures to optimize emergency response, reducing manual analysis time by 60%. [Credentials](#)

1Stop— Intern (AI) Python, TensorFlow, Keras, Scikit-learn, NumPy March 2022 - May 2022

Gained hands-on experience with Python, TensorFlow, and scikit-learn.
Contributed to machine learning projects, improving model accuracy by 10%.
Implemented a CNN model for image classification, achieving 95% accuracy on test data. [Credentials](#)

PROJECTS

Movie Research Toolkit — Python, LangChain, FAISS, Gemini Pro, HuggingFace, Streamlit June 2025

Built a lightweight movie news assistant using LangChain, Gemini 2.5, FAISS, and HuggingFace embeddings.
Achieved 95% retrieval precision on 100+ scraped articles, reducing manual research effort by 70%.
Integrated WebBaseLoader, custom prompts, and Streamlit UI for real-time movie update queries. [GitHub Link](#)

RAG-Based LLM AI Chatbot — LangChain, Ollama, Qdrant, BGE Embeddings, Streamlit Sept 2024

Built a local RAG chatbot using LLaMA 3.2, LangChain, and Qdrant with 92% retrieval accuracy.
Processed 500+ PDF pages using BGE embeddings and Unstructured for semantic search.
Deployed via Streamlit with minimal response time using a local LLM (Ollama). [GitHub Link](#)

Tomato Disease Detection App — Python, TensorFlow/Keras, Streamlit, OpenCV, NumPy Sept 2024

Built a CNN model with TensorFlow/Keras for tomato & potato leaf disease classification.
Developed a Streamlit app for real-time leaf disease detection.
Applied preprocessing & augmentation (OpenCV, NumPy) to enhance model performance. [GitHub Link](#)

COURSES & CERTIFICATION

- Fundamentals of Artificial Intelligence – Internship Studio [Credentials](#)
- AWS Academy Cloud Architecting – AWS Academy Graduate [Credentials](#)