

KAMAL SAI TILLARI

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WORK EXPERIENCE

Generative AI Intern <i>TECHNICAL HUB</i>	June 2024 - July 2024 <i>Kakinada, India</i>
<ul style="list-style-type: none">Designed and deployed multi-agent RAG pipeline using LangChain, FAISS, and ChromaDB, achieving 30% improvement in retrieval speed and 25% increase in contextual response accuracy.Optimized LLM performance through LoRA and QLoRA fine-tuning techniques, reducing computational costs by 40% while maintaining 95%+ accuracy on domain-specific tasks.Implemented agentic workflows for automated question-answering and summarization systems, improving task coordination and execution	

EDUCATION

ADITYA ENGINEERING COLLEGE, Kakinada, India Bachelor of Technology in Artificial Intelligence and Machine Learning	August 2022 - Present CGPA: 8.24/10.0
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PROJECTS

Research Assistant	July 2025 - Aug 2025
<ul style="list-style-type: none">Delivered using a dual-backend architecture (LangGraph + Flask) with intelligent error handling.Boosted the development efficiency through modular tool integration for web search and mathematical computations.Automated environment setup with 10+ Python dependencies and secured API key handling.Enhanced user experience with persistent conversation memory and real-time typing indicators.	

Movie Recommendation System(CREWAI)	Oct 2024 - Nov 2024
<ul style="list-style-type: none">Created a personalized movie recommendation platform leveraging multi-agent AI workflows (CrewAI + Gemini API) and Flask backend, ensuring scalable, modular design with strong error handling.Boosted response speed by 60% through modular integration of Google Gemini LLMs, CrewAI agents, and responsive React-based UI, enabling seamless real-time interactions.Built Applied rigorous error handling, prompt engineering, and system testing to improve recommendation accuracy, robustness, and user satisfaction.	

Agentic MCP RAG Assistant	May 2025 - Jun 2025
<ul style="list-style-type: none">Developed an AI-powered agriculture advisory system leveraging AutoGen multi-agent workflows, MCP integration, and Gemini API, enabling intelligent and context-aware recommendations for farmers .Reduced debugging time by 35% through AI-powered code analysis and autonomous problem-solving workflows.Implemented a Retrieval-Augmented Generation (RAG) pipeline to combine structured crop, soil, and climate datasets with real-time reasoning, ensuring accurate and data-driven insights.Optimized scalability and modularity by designing a Flask backend with structured error handling, while enabling seamless real-time user interaction through a React-based UI.Enhanced recommendation accuracy and robustness via prompt engineering, systematic testing, and integration of environmental context, improving reliability and user trust.	

Deepseek AI code Companion	Feb 2024 - Mar 2024
<ul style="list-style-type: none">Designed code companion using DeepSeek LLM, achieving a ~40% reduction in time spent on repetitive coding tasks through intelligent code generation, debugging, and explanation features.Enhanced developer productivity by automating debugging workflows and code explanations, resulting in a ~25% faster error resolution rate across diverse programming languages.Reduced debugging time by 35% through AI suggestions.	

TECHNICAL SKILLS

Agentic AI	: Multi-agent workflows, LangGraph, AutoGen, Autogen Studio, CrewAI
LLMs & APIs	: GPT-4, Claude, Gemini, LLaMA, Mistral, Function/Tool Calling
Frameworks	: LangChain, LangChain Expression Language (LCEL), Transformers, TensorFlow, PyTorch
DataBase	: FAISS, ChromaDB, Pinecone, VectorDB, Long-term Memory, Context Management
Tuning	: LoRA, QLoRA, PEFT, Prompt Engineering, Prompt Chaining
Deployment	: Docker, Streamlit
Tools	: Python, Git, GitHub Actions, API Integration

CERTIFICATIONS

- Machine Learning(IIT Madras)
- Deep Learning with TensorFlow (EdX)
- Deep Learning with Keras (EdX)
- Oracle Generative AI Certified Professional
- Java Programming Fundamentals(EdX)
- Machine Learning with Python(EDX)
- Dell Technologies GEN AI Professional
- Oracle MySQL 8.0 Database Developer(Oracle)