

ISHANT THAKARE

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SUMMARY

Experienced AI Engineer specializing in Python development with a focus on Federated Learning and Generative AI. Possessing 3+ years of hands-on expertise in crafting innovative solutions and leveraging cutting-edge technologies.

SKILLS

Languages: Python

Technologies: Agentic AI, Generative AI, Federated Machine Learning, Framework Development

Frameworks & Libraries: LangChain, LangGraph, CrewAI, OpenAI, OpenFL, NumPy, Scikit-learn, PyTorch, TensorFlow

Tools: Linux (Ubuntu), Git, GitHub, Docker, VS Code

PROFESSIONAL EXPERIENCE

Capgemini Engineering

Professional II-Lead Developer

04/2025 – present | Bangalore, India

- Developed a **robust** fault tolerance and error resilience mechanism to enhance the reliability of distributed Federated Learning workflows.
- Streamlined and automated TLS (Transport Layer Security) setup to ensure **secure communication** across federated components.

Professional I-Software Engineer

10/2023 – 03/2025 | Bangalore, India

- Analyzed **straggler handling** mechanism in the client's Federated Learning (FL) framework to **identify performance bottlenecks**.
- **Redesigned** the straggler mitigation strategy to improve system **robustness** and **overall performance**.
- **Designed** and **implemented** a runtime orchestration layer that enables seamless transition from local simulations to distributed Federated Learning deployments within Jupyter notebook environments.

Associate II-Software Engineer

07/2022 – 09/2023 | Bangalore, India

- Developed a **cutting-edge feature** within Federated Learning, enabling the Aggregator component of Federated Learning to function as a **stateful actor**, **optimizing task execution** through parallelization using Ray.
- **Debugged** and **resolved** a critical issue in a machine learning model that was preventing it from running properly by diagnosing and troubleshooting a bug related to the NumPy library in Python.
- Gained experience in collaborating with team members and overcoming technical challenges during the Development process.

PROJECTS

Agentic AI Personal Health Coach

Privacy-Preserving AI for Post-Discharge Patient Care

06/2025 – 08/2025

- Built an **LLM-powered digital health companion** to deliver personalized recovery support and reduce hospital readmission rates.
- Integrated **Federated learning** to enable collective intelligence across hospitals without exposing sensitive patient data.
- Automated follow-ups, vitals tracking, and **medication adherence reminders** improve patient engagement and satisfaction.
- Developed a **simulated EHR system (CSV-based)** to model clinical record integration and enable context-aware recommendations.

Tech Stack: Python, LangChain, LangGraph, Federated Learning (OpenFL), Tensorflow, Groq/Ollama/OpenAI GPT Models, Streamlit

AstraBot: Multi-Tool Agentic AI Chatbot

Multi-Tool LLM Assistant

06/2025 – 07/2025

- **Agentic LLM Chatbot:** Natural, context-aware conversations powered by Groq models and state-of-the-art LLM technology.
- **Tavily Web Search Integration:** Fetch real-time information from the web seamlessly during conversations.
- **AI News Summarizer:** Automatically aggregate and summarize the latest news articles into concise summaries.
- **Groq Model Selection:** Easily switch between different Groq LLM models for optimized speed and accuracy.
- **Modular Architecture:** Extensible design to add new tools, LLMs, and features with minimal effort.

Tech Stack: Python, Langchain, Langgraph, Groq LLM, Tavily, Streamlit

EDUCATION

Prof. Ram Meghe Institute of Technology & Research

Bachelor of Engineering (B.E), Computer Science

07/2018 – 07/2022 | Amravati, India

CGPA: 9.2/10