AJAY GONHALMATH

Bengaluru, Karnataka, India
+91 9964988691 — ajayagm07@gmail.com — ajayportfolio.site
linkedin.com/in/ajay-gonhalmath — github.com/ajaygm18

PROFESSIONAL SUMMARY

Applied AI and Generative AI-focused Computer Science student with hands-on experience building LLM-powered applications, RAG pipelines, AI agents, semantic search systems, and Python backend APIs. Skilled in Python, LangChain, OpenAI API, FastAPI, vector databases, embeddings, prompt engineering, tool calling, and retrieval workflows. Experienced in designing modular AI systems that combine retrieval, reasoning, API integration, automation, and structured output generation for real-world use cases.

TECHNICAL SKILLS

- **Programming Languages:** Python, Java, SQL
- **Generative AI / LLMs:** OpenAI API, Google AI Studio API, NVIDIA NIM API, LangChain, RAG, AI Agents, Agentic Workflows, Prompt Engineering, Tool Calling, MCP, LLM APIs, Hugging Face Transformers, Ollama
- **Vector Search / Retrieval:** Pinecone, Chroma, Vector Databases, Embeddings, Semantic Search, Similarity Search, Retrieval Pipelines
- **Backend / APIs:** FastAPI, REST APIs, Pydantic, Async Python, API Integration, Backend Workflows
- **Machine Learning / Data:** Pandas, NumPy, Scikit-learn, Machine Learning, Exploratory Data Analysis, Data Processing
- **Tools / Platforms:** Git, GitHub, Linux, AWS, Selenium, BeautifulSoup, Automation Pipelines
- **Visualization:** Matplotlib, Seaborn

EXPERIENCE

Python Intern **Jan 2026 – Present**
Asset Telematics Pvt Ltd, Bangalore Urban, Karnataka, India Hybrid

- Developed Python-based backend workflows for data processing, automation, structured task execution, and API-driven software functionality.
- Applied asynchronous Python concepts to improve efficiency in backend processing and automation workflows.
- Performed exploratory data analysis using Pandas and NumPy to clean, analyze, and extract insights from real-world datasets.
- Built Generative AI applications using LangChain, RAG, embeddings, and vector databases for intelligent information retrieval.
- Designed modular AI workflows with tool calling, retrieval logic, and multi-step execution for automation-focused use cases.
- Integrated APIs, structured data handling, and backend orchestration to support practical AI and software solutions.

PROJECTS

Agentic AI Assistant with RAG, MCP, Tool Calling, and FastAPI GitHub

- Built an AI assistant using LangChain, OpenAI API, RAG, MCP, tool calling, and FastAPI for modular AI task execution.
- Implemented retrieval-augmented generation using embeddings and vector search to ground LLM responses in relevant context.
- Designed agentic workflows for multi-step reasoning, prompt routing, tool selection, and dynamic task execution.
- Integrated conversation memory and structured prompt handling to improve multi-turn interaction quality.
- Exposed AI workflows through FastAPI endpoints for real-time backend integration and scalable API usage.
- **Technologies:** Python, LangChain, OpenAI API, MCP, RAG, Vector Database, FastAPI, Embeddings

Hybrid Trading Intelligence System using SMC, Algorithmic Logic, and LLM Reasoning

- Built a hybrid market analysis system combining deterministic Smart Money Concepts logic with LLM-based reasoning.
- Implemented rule-based detection for market structure, liquidity zones, break of structure, and order blocks using OHLC data.
- Used LLM APIs to generate contextual market bias, explain detected patterns, and support probabilistic decision-making.
- Processed and analyzed market data using Python, Pandas, and NumPy for signal detection and structured market commentary.

- **Technologies:** Python, Pandas, NumPy, LLM APIs, Algorithmic Logic, Smart Money Concepts

Web Search Automation and Link Crawler Tool

- Developed an automated search and crawling tool for query execution, recursive link extraction, and structured data collection.
- Used Selenium and BeautifulSoup to handle browser automation, dynamic pages, HTML parsing, and reusable extraction workflows.
- Built automation scripts for scalable web discovery, link analysis, and data collection from public web pages.
- **Technologies:** Python, Selenium, BeautifulSoup, Web Automation, Data Extraction

EDUCATION

Bachelor of Engineering in Computer Science and Engineering **2022 – 2026**
Shridevi Institute of Engineering and Technology, Tumkur
CGPA: 7.0/10

CERTIFICATIONS

- AI Engineer for Developers Associate – DataCamp
- Generative AI Professional – Oracle
- AWS Cloud Practitioner – DataCamp
- Intermediate Python – Udacity
- Ethical Hacking and Penetration Testing – Udemy