KONCHADA MAHADEV

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Summary

- I'm Konchada Mahadev — A Btech graduate in Electronics and Communication Engineering and 2 years of IT Experience as Software Test Engineer and Specialist Programmer with practical experience delivering full-stack Python services and Gen-AI integrations. My work spans document intelligence platforms and developer-facing foundation services that make LLMs practical for production use. I enjoy turning research ideas into reliable, maintainable systems and mentoring peers on practical ML/AI integrations.

Education

Lendi Institute Of Engineering And Technology , Electronics And Communication Engineering — May 2020 – May 2024

- GPA: 8.5/10

Kendriya Vidyalaya, Intermediate MPC, Vizianagaram — June 2018 – May 2020

- GPA: 8.5/10

Kendriya Vidyalaya, 10th Class, Vizianagaram — April 2017 – May 2020

- GPA: 8/10

Technologies

Programming Languages: Python, GEN-AI, Vector Databases, Embeddings, RAG (Retrieval-Augmented Generation), Azure AI Search

Tools: PyCharm, SQL Workbench, Jupyter Notebook, VSCode, GIT

Web-Development & Gen-AI Technologies: Flask & FastAPI, LangChain & LangGraph, Prompt Engineering, Machine Learning, Front-end (Streamlit / HTML & CSS)

Experience

Specialist Programmer, Infosys — Sep 2024 – present

- Developed and maintained end-to-end Python full-stack applications, implementing scalable backend services and responsive frontends using modern frameworks and RESTful APIs.
- Hands-on experience in GenAI development, including working with Large Language Models (LLMs), Retrieval-Augmented Generation (RAG), prompt engineering, vector databases (e.g., FAISS, Pinecone), and embeddings for building intelligent, context-aware applications.

Software Test Engineer, Oppo and Oneplus Research Development Center — Feb 2024 – Sep 2024

- Collaborated with the BSP (Board Support Package) team to test and validate key modules including Security, Touch Panel, Power Management, Sensors, and System Stability across various device platforms.
- Performed comprehensive verification and validation of hardware-integrated sensors, with hands-on experience in testing proximity, light, gravity, and magnetic sensors to ensure optimal functionality and performance.
- Executed rigorous stability and performance testing under diverse usage scenarios, contributing to overall system robustness and enhancing user experience in final product releases.

Internship, Oppo & Oneplus Research and Development Center — July 2023 - Feb 2024

- Gained hands-on experience in smartphone power measurement techniques, utilizing tools and methodologies to accurately assess power consumption across various system components.
- Learned and applied performance optimization strategies, focusing on enhancing device responsiveness and efficiency while maintaining minimal power usage.
- Developed a solid understanding of how memory and CPU configurations affect power consumption, contributing to informed decision-making in hardware-software tuning.

Projects

Foundation Platform – Reusable Document Intelligence APIs

- Designed and developed reusable APIs for document ingestion, retrieval, summarization, and LLM invocation, forming the core foundation for multiple downstream projects.
- Implemented asynchronous ingestion workflows with support for .pdf, .docx, .txt, etc., enabling background processing and job tracking through a status API (in-progress, completed, failed).
- Built retrieval APIs to fetch documents based on user queries and session context, improving traceability and user experience
- Developed summarization using MapReduce techniques for both documents and LLM conversations, enhancing efficiency and scalability

Proposal Assistant

- Built an AI-driven assistant to automate proposal creation by ingesting documents (.pdf, Box links, etc.) into a vector database for intelligent retrieval.
- Developed pipeline to extract and structure proposal data (text, tables, images) and populate a standardized template using LLMs.
- Integrated best practices documents into the LLM workflow to ensure proposals adhere to organizational guidelines and quality standards.
- Implemented advanced document parsing and formatting to handle complex elements like tables and images seamlessly.
- Delivered a scalable solution that reduced manual effort in proposal preparation and improved consistency and turnaround time.

AI Powered Code Generator

- Uses Google Gemini (configurable) to generate clean, documented Python code from natural-language prompts and returns both code and generation metadata.
- Supports safe code execution in a sandboxed environment with captured stdout/stderr and execution success tracking.
- Stores user sessions and generation history in a database (SQLite by default, MySQL optional) with analytics endpoints and a server-rendered history UI.
- Designed with security and observability: API key hashing for analytics, input validation, error logging, and endpoints for history and analytics (/generate, /execute, /history, /analytics).

Achievements & Certifications

- Achieved Infosys Certified Python Programmer
- Achieved Microsoft Azure AI Engineer Certificate (AI-102)
- Received Outstanding Contribution Award from OPPO.
- Achieved Hacker Rank Certification in Python Programming.