HARINI SARAVANAN

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SUMMARY

Backend developer with strong Python and SQL skills, building data-driven applications and RESTful APIs. Familiar with AI concepts, data analysis, and scalable system design, eager to grow in these areas.

PROJECT

Conversational AI Shopkeeper | Python, Gradio, OpenAI, FAISS, SQLite

- Built a conversational AI shopping assistant that retrieves product details from a private catalog using RAG (Retrieval-Augmented Generation) architecture.
- Implemented FAISS vector indexing with OpenAI embeddings for semantic search, reducing product search latency by ~25% compared to keyword-based lookup.
- Tuned prompts and embeddings to improve context understanding and recommendation relevance, achieving ~85% answer accuracy on internal test queries.

AI-Powered Resume Analyzer | Python, Streamlit, OpenAI, Scikit-Learn, Pandas

- Built an AI Resume & Job Matcher using OpenAI embeddings to provide ATS match scores and personalized improvement tips.
- Combined keyword and semantic scoring, boosting job fit accuracy by ~30% over traditional methods.
- Developed a Streamlit interface for instant resume-job matching, highlighting missing skills and improvement guidance.

Personal Finance Tracker | Python, Streamlit, SQLite

- Built a web-based finance tracker with secure user login and transaction management (add, edit, delete)
- Implemented real-time tracking of income, expenses, and savings with PDF report generation.
- Designed a clean, user-friendly interface for effortless daily budgeting.
- Enabled filtering by date, type, and category for quick insights into financial activity.

INTERNSHIP

National Institute of Electronics and Information Technology (NIELIT), Chennai   **JUNE 2024**
Smart Waste Management System

- **Technologies:** Python, IoT Data Processing, Route Optimization Algorithms.
- **Developed a Python system** to collect, parse, and structure real-time fill-level data from IoT-enabled smart bins.
- **Implemented a dynamic route optimization algorithm** to prioritize bins nearing full capacity, improving collection efficiency.
- **Enhanced waste management operations** by reducing unnecessary trips and lowering fuel consumption.

TECHNICAL SKILLS

Programming & Backend: Python, SQL, Flask, FastAPI
AI/ML & LLMs: Retrieval-Augmented Generation (RAG), FAISS Vector Search, OpenAI API
Databases: MySQL
Core Fundamentals: Object-Oriented Programming (OOP), Data Structures & Algorithms (DSA)

CERTIFICATIONS

- **Programming in Python** – SWAYAM (CEC)
- **Artificial Intelligence Foundations** – LinkedIn Learning

EDUCATION

Bachelor of Engineering in Electronics and Communication Engineering   **APRIL 2025**
Government College of Engineering, Bargur
CGPA: 8.06/10

Higher Secondary Education   **APRIL 2021**
I.V.L. Matric Higher Secondary School
Percentage: 91.6%

HACKATHON & PRESENTATION EXPERIENCE   **MARCH 2025**
Certificate of Appreciation – TANCAM's Hackathon

Selected to present a complex engineering project ("Algorithmic Performance Analysis") to a panel of industry professionals and peers, demonstrating the ability to articulate intricate technical concepts clearly and effectively.