AADHITHYA R

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in aadhithyar · ⚙ Aadhithya01 · </> Aadhi01 · 🌐 Portfolio

PROFILE

Proactive AI Engineer building smart, scalable, and cloud-native AI systems using modern open-source tools. Experienced in developing LLM-powered solutions, machine learning workflows, and automated data extraction pipelines. Passionate about driving business impact through intelligent automation while staying current with the latest in generative AI and open-source innovation.

EDUCATION

Bachelor of Computer Science & Engineering, Easwari Engineering College   CGPA - 9.5 (2020 - 2024)

Higher Secondary, SRV Matriculation Hr. Sec. School Samayapuram   84% (2019 - 2020)

Secondary Education, SBOA School & Junior College   83% (2017 - 2018)

EXPERIENCE

SPAN TECHNOLOGY SERVICES PRIVATE LTD.   **January 2024 – Present**
Junior AI Engineer   Erode, India

- **Built and Deployed AI Chatbot Using Flowise:** Designed a production-grade chatbot using Flowise to handle 1,000+ daily user queries related to tax filing. Reduced the customer support load by 65% and established the foundation for full support automation.
- **Enabled Seamless Escalation to Live Agents and Monitored Chatbot Metrics:** Integrated a live agent fallback system using open-source tools, allowing agents to access prior LLM-chat context before escalation. This streamlined issue understanding, reduced redundant back-and-forth, and improved overall response flow by 30%. Additionally, Langfuse was configured to track model output, latency, and error rates in real time, enabling quick debugging and improving model response consistency.
- **Automated OCR Pipeline for Tax Form Processing:** Developed a pipeline with Tesseract OCR to extract structured data from W9, W8, and 1095-C forms. Reduced manual data entry workload by up to 80% and improved data integrity across internal systems.
- **Deployed Open-Source Tools for Production and Internal Use:** Dockerized and hosted open-source tools such as Langfuse, Flowise, Langflow, Zammad, and Typebot to support both internal operations and production-grade chatbot systems. Enabled scalable workflows for monitoring, feedback analysis, and user support—eliminating the need for paid SaaS tools.
- **Implemented Modular APIs for Internal and Production Automation:** Built and deployed 10+ RESTful APIs to automate tasks such as validation, formatting, and data generation. These APIs summarize user conversations with AI and LLM, manage tickets, and assess feedback sentiment (positive, negative, or neutral). Integrated company application-related chatbots into Slack, enabling employees to resolve queries and access HR policy information directly within Slack.

PROJECTS

Chat with PDFs:

- Engineered an interactive web app using Python and Streamlit that allows users to query PDF documents in natural language, improving comprehension and reducing analysis time by 50%.
- Integrated open-source Google's Generative AI for language understanding and FAISS for similarity-based search, delivering 90% accuracy comparable to paid alternatives while remaining cost-effective.
- Enhanced user interface for seamless navigation of large documents, resulting in a 40% increase in user satisfaction and improved decision-making.

Voiceover GPT Bot:

- Built a voice-activated assistant powered by OpenAI's GPT-3.5-turbo to deliver relevant and conversational responses for hands-free use cases.
- Combined Google Speech Recognition with pyttsx3 to enable real-time speech-to-text and natural-sounding voice replies, enhancing interaction fluidity.

- Improved accessibility and user engagement by eliminating the need for manual input through effective voice-driven communication.

Assignment Generator:

- Designed a tool to automate academic content creation by scraping and rephrasing Wikipedia data using OpenAI's GPT-3.5-turbo.
- Employed Selenium for browser automation and BeautifulSoup for parsing HTML, ensuring 95% success in structured content extraction.
- Streamlined content saving and formatting using Requests and file I/O utilities, cutting down manual content preparation effort by 60%.

Synthetic Customer Data Generator using PostgreSQL and Faker:

- Created a Python utility to simulate and insert realistic customer order data into PostgreSQL databases using Faker.
- Structured scalable database schemas and auto-populated 100+ diverse records, reducing testing data preparation time by 80%.
- Ensured secure and asynchronous database connectivity across environments by leveraging 'asyncpg' and environment-based configuration.

CERTIFICATIONS

Foundation in Programming and Data Science	**IIT Madras**
Machine Learning Foundations	**AWS Educate Certification**
Build your own Chatbot	**Deeplearning.AI Certification**
Data analytics with python	**NPTEL**

LEADERSHIP

Active member of Easwari Rotaract community	**Representative (2020 - 2024)**
Organized many technical events and hackathons in the college coding club.	**Lead (2022 - 2024)**
Conducted technical and non-technical events at the Department Symposium.	**Events Lead (2023 - 2024)**

PUBLICATIONS

How to create a legend for a contour plot in matplotlib	**Codespeedy**
Generate secure random string using Secrets module in Python	**Codespeedy**