Muthu Selvam V

Final-year AI Developer focused on cutting-edge AI solutions including LLM Agents, Retrieval-Augmented Generation (RAG), and Computer Vision. I build smart systems that think, adapt, and deliver results in domains like healthcare, finance, and automation.

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EDUCATION

Sethu Institute Of Techonology	
BE.Computer Science and Engineering	2022 - 2026
Wisdom Matric Higher Secondary School	
HSC	2019 - 2020
SSLC	2021 - 2022

SKILLS SUMMARY

- Languages: Python (AI/ML, Generative AI, RAG), C, C++, Java
- AI & ML Frameworks: TensorFlow, Keras, Scikit-learn, OpenCV, NLTK, Hugging Face Transformers
- Agentic & Generative AI: LangChain, LangGraph, GPT-based Models, LLaMA, Stable Diffusion, RAG **Systems**
- Tools: Git, MySQL, SQLite, VS Code, Jupyter Notebook
- Platforms: Windows, Web, Arduino, Raspberry Pi
- Soft Skills: AI Product Development, Problem Solving, Leadership, Time Management, Research Thinking

PROJECTS

1. RAG_Excel - AI Document & Data QA System

Tech Stack: Python, LangChain, OpenAI API, Streamlit

Developed a RAG-based tool to query Excel sheets and documents using LLMs for accurate data retrieval, summarization, and interactive Q&A.

2. CodingAgent - Autonomous AI Coding Assistant

Tech Stack: Python, LangChain, OpenAI API, Streamlit

Built an LLM-powered assistant using a multi-agent system to plan tasks, generate and debug code, and deliver results via a simple interface.

3.Multi-Agent AI Heart Disease Diagnosis & Monitoring Assistant

Tech Stack: LangChain, FAISS, FastAPI, Streamlit, Whisper, HuggingFace, scikit-learn

Developed a real-time AI assistant with multi-agent architecture for heart disease detection and monitoring. Supports voice interaction, analyzes patient data, predicts risk, and provides guideline-based insights for diagnosis and care.

4.Spam Mail Detection System

Tech Stack: scikit-learn, NLTK, Pandas, Flask, Streamlit

Developed an ML-based system to detect spam emails using NLP and classifiers like Naive Bayes and SVM. Deployed with Streamlit for real-time predictions.

EXPERIENCE

Web Development Intern - link

Phoenix Softech, Madurai

June 2024 – July 2024

- Completed hands-on training in Web Development using PHP.
- Built and tested dynamic web pages with backend integration.
- Gained practical knowledge in server-side scripting and web application flow.

Artificial Intelligence Intern - link

Novitech R&D Private Limited, Remote

Oct 2024 - Nov 2024

- Completed a one-month internship focused on Artificial Intelligence concepts and applications.
- Gained hands-on experience with AI techniques including supervised learning, data preprocessing, and model evaluation.
- Contributed to real-time AI problem-solving tasks under professional mentorship.

Machine Learning Intern - link

Novitech R&D Private Limited, Remote

Nov 2024 – Dec 2024

- Completed a one-month internship in Machine Learning.
- Worked with ML algorithms such as linear regression, decision trees, and clustering methods.
- Implemented machine learning models on datasets using Python and libraries like scikit-learn and pandas.

Conferences & Presentations

Lexi Sense – AI-Powered Legal Assistant

Presented at ICCCT 2025, Sri Vidya College of Engineering & Technology Sponsored by Tamil Nadu State Council for Science & Technology | March 22, 2025 Explored Generative AI & LLMs for legal analysis and AI-driven legal support.

Certifications

- AI Appreciate Intel & CBSE Completed the "AI For All" program on ethical and responsible AI applications.
- <u>Programming in Java</u>, <u>Data Science Foundation</u>, <u>Artificial Intelligence Foundation</u> Infosys Springboard: Gained proficiency in Java development, data-driven analysis, and foundational AI concepts.
- <u>Cloud Computing</u>, <u>Human-Computer Interaction</u> NPTEL: Completed 12-week courses on cloud infrastructure, usability, and interaction design.
- <u>Learn How to Master AI Image Generation</u> Scaler , <u>Scalable Auth with Node.js & JWT</u> NoviTech , <u>Real-Time Color Detection</u> NoviTech , <u>AI & ML Workshop</u> VINSUP Academy (Skill India) , <u>Python Framework</u> Sethu Institute of Technology : Gained hands-on experience in AI tools, backend authentication, computer vision, machine learning, and Python development.

VOLUNTEER EXPERIENCE

Organizer, College Hostel Day, Sethu Institute of Technology (October 2023)

• Successfully coordinated the planning and execution of the college hostel day, managing logistics and organizing activities. Engaged students and faculty, fostering a sense of community and collaboration among hostel residents.