# Vithya Sri R

AI & Data Science Graduate

Portfolio |HackerRank | Leetcode

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 GitHub Profile
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## EDUCATION

**Bachelor of Technology in Artificial Intelligence and Data Science** *2021-2025*

*MEPCO Schlenk Engineering College, Sivakasi* CGPA: 7.8+

## PROJECTS

**RAG Chatbot with MCP : LLM | Link** *August 2025*

*Built a Retrieval-Augmented Generation chatbot combining LLMs*

- Designed a chatbot pipeline that required data chunking, and embedding vector creation for document retrieval for both structure and unstructred data (Json, pdf, text ,etc..).
- Solved challenges with tokenization and vector space retrieval by applying semantic search and overlapping chunking for context-aware responses for improved chatbot responses.
- Evaluated performance using ROUGE scores, improving interaction efficiency by 80% with Streamlined project workflow.

**Text to Speech Synthesis with GenAI (Gemini API) : IOT | Link** *August 2024*

*Built a text to speech chatbot app integrating OpenAI Gemini API with Esp32 IOT model .*

- Integrated open ai (gemini) for audio to text(chatbot) and esp32 for text to speech conversion .
- Esp32 Module with IC142 help to synthesis the speech poutput without noise error using speaker .
- Chatbot gui using ArduinoIDE for project workflows, enhancing overall efficiency by 75%.

**Best Path Finding : Machine Learning | Link** *August 2023*

*A demo of a genetic algorithm with a multilayer perceptron to predict the next movement*

- Utilized machine learning algorithms to develop an intelligent system for determining the optimal path for a Car.
- To optimize navigation efficiency Feed Forward Neural Network was adapt to changing conditions and got 95%.
- JavaScript project workflows, enhancing overall efficiency by 98%.

## HACKATHON ACHEIVEMENTS & INTERNSHIP EXPERIENCE

**Pedestrian Safety in ADAS** *Aug 24 - May 2025*

*Techno Innovate* Research + Hackathon
- Won 2nd price with a 3000 reward for an Hardware innovation challenge with our idea using neural networks.
- Published a conference paper about the research to enhance pedestrian safety in Advanced Driver Assistance Systems.

**Medicinal Leaves Identification** *Feb 2023*

*Smart India Hackathon* Hackathon
- Semi-finalist in SIH 2023 for deploying a real world problem statement using DeepLearning methods.
- Developed a real-time mobile application using KivyMD, achieving 95% accuracy across 10,000+ images.

**Technical Content Writing** *Jan - Aug 2024*

*GeeksforGeeks* Freelance
- Published 5+ articles on topics related to machine learning, deep learning, and SQL Server.
- Specialized in explaining complex ML models, such as SVM, CNN, and LSTM.

**Web Development Intern** *April-2024*

*Internship* Octanet
- Done 5 small web application similar to HTML/JS portfolio , Django Renatal Vehicle application and so on.

## TECHNICAL SKILLS AND INTERESTS

**Languages**: C/C++, Python, Java, JavaScript
**Tools**: API Interfacing, Hugging face , N8N automation , Git , CI/CD pipeline , Linux
**AI & ML**: F1 Score, Accuracy, Transformers, LLM, PyTorch, TensorFlow, NLTK
**Frameworks**: ReactJs , Streamlit , KivyMD, Django , LangChain
**Big Data & Databases**: Apache Spark (Pyspark) , Hadoop, MongoDb, Firebase, Relational Database, Neo4j, PL/SQL
**Position of Responsibility**: NCC Cadet (C - Certified), Google Club Member (21-25), NSS Volunteer(21-25)
**Visualization** : Tableau , Power BI , Weka , Orange , ETL

## CERTIFICATIONS

| Link

**Oracle Cloud AI Infrastructure** | Oracle *Aug 2025 - Oct 2025*

**Big Data Computing , Python , Java** | NPTEL - Elite *Oct 2022 - May 2024*

**DSA & Algorithms, NoSql Databases** | Infosys *Jan 2024 - Aug 2024*