

Reshma Sriram

AI-ML TRAINEE ENGINEER & DATA ANALYST

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Summary

Professional with a solid background in Electrical Engineering and Programming who is also detail-oriented and adaptable. Competent in embedded system programming using Python and C. Proficient in HTML and CSS Web development. Expert in DBMS and SQL, with passion for AI and machine learning. Possess a strong understanding of Java and MATLAB along with technical proficiency.

Education

Sri Sairam Institute of Technology

B.E. ELECTRICAL AND ELECTRONICS ENGINEERING

CGPA: 8.6

Chennai, Tamil Nadu

2020 – 2024

1 Professional Experience

AI-ML Trainee Engineer

2024 – PRESENT

Avasoft

Location

- Developed and implemented **Recurrent Attention Generator (RAG)** models using Python to enhance machine learning algorithms for data processing.
- Collaborated with the team to design and deploy **AI-driven web scraping solutions** to collect data from various websites and update the internal database, significantly improving data retrieval speed and accuracy.
- Worked with the **backend** development team to integrate machine learning models into production systems, ensuring seamless functionality between AI algorithms and the backend infrastructure.
- Enhanced the **frontend** and **backend** processes, providing optimized solutions in Python, focusing on scalability, efficiency, and robust error handling.
- Contributed to cross-functional teams, working on **data-driven projects** involving machine learning applications for automation and security enhancement.

Skills

Languages C, Java, Python, SQL, HTML, CSS, React and Node JS

Other Skills

Cloud Computing, Networking, DBMS (SQL/NoSQL), Machine Learning & PCB Design (Advanced), VLM, Content generation, grammar proficiency, Artificial Intelligence, Large Language Models, MS Office and Excel, JSON, JavaScript, Express JS, data modeling, Natural Language Processing, Object-Oriented Programming, AWS, Azure

Projects

RAG IMPLEMENTATION

[View Project](#)

TECH STACK: AI-CHAT BOT

- An AI-powered medical guidance system using FastAPI, PostgreSQL, and Azure OpenAI for intelligent prescription assistance. It features user authentication, RAG-based responses, and web search integration for accurate medical insights.

User-collection

[View Project](#)

TECH STACK: NODE.JS-BACK-END

- An application for maintaining the user-details and showing the information. Simple implemented web page using Node.js (mongo Db).

Other Projects

- Wireless Power Transfer for Electric Vehicle
- CAN - Satellite
- Pipeline Climbing Robot for Gas - Leakage Detection
- Integrated Li-Fi (Light Friendly) Communication for Smart Robotic Control
- PV Based Multilevel Inverter Using Flyback Converter
- Developed an AI-powered RAG system integrating retrieval and text generation for enhanced response accuracy.
- Developed a React-based form with real-time validation using React Hook Form/Formik.
- Integrated request validation, authentication, and error handling for secure API communication using python.
- Designing of FRONT-END website using FIGMA

Achievements

- Insperathon - Winners - Lifi Integration technology
- Paper Publishment - International Conference (IEEE)
- IEEE Xtreme Coding Competition - All India Rank 25 and World Rank 250
- Niral Government Funded Project Winners - Pipeline Climbing Robot
- Smart India Hackathon - Finalist