R HEMESH

+91 91107 89962 | hemesh2005r@gmail.com | linkedin.com/in/hemesh-r | github.com/Hemesh11

EDUCATION

Vellore Institute of Technology   Katpadi, Tamil Nadu
Bachelor of Technology in Computer Science specializing in Internet of Things (9.63 CGPA)   *Sep. 2022 - Jul. 2026*

Sri Chaitanya Jr. College   Tirupati, Andhra Pradesh
Higher Secondary education (Aggregate: 97.8%)   *2020 – 2022*

Sri Chaitanya Techno School   Chittoor, Andhra Pradhesh
Senior Secondary education (Aggregate: 96.67%)   *2020*

EXPERIENCE

Data Science & AI Intern | *ZOLVIT (formerly VAKILSEARCH), CHENNAI*   *May 2025 – July 2025*
AI-Powered Document Validation System | *Python, FastAPI, Streamlit, OpenAI API, Pydantic, Elasticsearch*
- Designed and developed an end-to-end document compliance validation system for GST and Trademark (TM) services, using Python, FastAPI, and Streamlit.
- Built AI-powered extraction modules leveraging LLMs (OpenAI) to automate data extraction from unstructured documents (e.g., Rental Agreements, PAN, Aadhar, NOC, Board Resolutions).
- Implemented robust rule-based validation logic for regulatory compliance, including cross-document checks, clarity scoring, signature and notary verification, and Aadhar-PAN linkage.
- Integrated Elasticsearch for dynamic rule/config management and developed a user-friendly web interface for document upload and real-time validation feedback.

PROJECTS

Machine Learning Project - Diabetes Mellitus Prediction | *Python, NumPy, Kaggle*
- Utilized various algorithms to predict diabetes mellitus.
- Overcame initial difficulties in data preprocessing and model optimization. Attempted to implement image detection techniques as part of the project.
- Trained and tested a model on a simple dataset, and achieved 99% accuracy

Accident Prevention System at Blind Curves using IoT | *ESP32, Firebase, Blynk, Sensors*
- Built a smart system using ESP32 with ultrasonic, IR, and LDR sensors to detect vehicles and manage traffic lights in real time. Integrated Firebase for cloud storage and Blynk for remote manual control.
- Automatic streetlight dimming with LDR to reduce power consumption & buzzer alert system using IR detection.
- Implemented intelligent signaling logic based on multi-point ultrasonic detection for blind curves and foggy roads.
- Achieved real-time monitoring, manual override, and intelligent control to reduce accidents and save energy.

Plagiarism Detection Web Application | *| Python, Flask, HTML, CSS, PDF Processing, Matplotlib*
- Developed a web application that detects text similarity between uploaded PDF files using cosine similarity.
- Implemented a secure login system with session handling using Flask. Visualized similarity scores using a heatmap generated with Matplotlib. Enabled CSV report download and heatmap image export for analysis.
- Designed a clean dark-themed UI with separate modules for text extraction and visualization.

Web Development Project - YouTube Clone | *HTML, CSS, Javascript, React*
- Developed a YouTube clone using HTML, CSS, JavaScript, React, and React Router.
- Implemented dynamic routing and responsive design.

ACHIEVEMENTS

- **10th Rank Merit Scholarship** - Awarded for academic excellence in the 1st year of B.Tech. CSE-IoT at VIT University.
- **1st Rank Merit Scholarship** - Awarded for securing the top position in the 2nd year of B.Tech. CSE-IoT at VIT University.
- **1st Rank Merit Scholarship** – Awarded again for achieving the top position in the 3rd year of B.Tech. CSE-IoT at VIT University.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, SQL, JavaScript, HTML, CSS, R, MATLAB
Libraries: openapi, NumpPy, Matplotlib, Socket
Frameworks: Node.js, FastAPI, Streamlit, Pydantic
Developer Tools: Git & Github, VS Code, Kaggle, Jupyter Notebook

CERTIFICATIONS

AWS Certified Cloud Practitioner   CERTIFICATE LINK
Machine Learning: Stanford University & DeepLearning.AI   CERTIFICATE LINK
    Supervised Machine Learning: Regression and Classification
    Advanced Learning Algorithms
    Unsupervised Learning, Recommenders,Reinforcement Learning
Prompt Engineering for Developers   CERTIFICATE LINK