SENTHIL KUMARAN S

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EXPERIENCE

SENTHIL KUMARAN SERVICES   TAMIL NADU, IN,
Independent Consultant & Freelancer   2023 – Present
Developed custom web solutions for clients, implementing a wide range of functionalities tailored to their specific needs involved integrating databases, designing user interfaces, and optimizing performance . I also provided ongoing support and maintenance to ensure the solutions remained robust and effective over time.

FREELANCE DEVELOPER   October 2023 - Present
CSC Organization   Remote, Tamil Nadu

- Developed and implemented a CSC Management App targeting student and staff management, inquiries, admissions, and branch admin tasks, improving process efficiency by 40% and reducing administrative workload by 25 hours weekly.
- Developed and optimized a Bot Management System, integrating admin-controlled CRUD operations and comprehensive bot management features, significantly enhancing data accuracy and reducing manual intervention by 40%

Projects

- Vision Assist
    - Built a web application using computer vision for visually impaired individuals with real-time object detection and guidance.
    - Improved environmental awareness for users by 70%, utilizing the Web Speech API for efficient navigation.
- Public Littering Detection System
    - Engineered a real-time detection system using YOLOv5 to identify public littering activities.
    - Achieved a 50% reduction in littering incidents within monitored areas, promoting environmental awareness.
- Video Interpolation for Satellite Imagery
    - Developed a video generation and interpolation system under ISRO Remote Sensing to enhance satellite imagery visualization.
    - Increased frame continuity by 60%, improving the usability of satellite data for analysis.
- No-Code Chatbot for University Queries
    - Designed a no-code chatbot system to assist university website users with department-specific queries based on RAG rules.
    - Reduced query response time by 80% and achieved 95% accuracy in resolving user inquiries autonomously.

EDUCATION

ANNAMALAI UNIVERSITY   Chidambaram, Tamil Nadu
Bachelor of Engineering, Major in INFORMATION TECHNOLOGY
Coursework: Information Technology Fundamentals, Database Management Systems, Web Development, Networking Essentials, Operating Systems Fundamentals, Software Engineering Principles, Cybersecurity Fundamentals, IT Project Management
Project : "Developed a YOLOv5 Model for Object Detection: Enhancing Waste Disposal Monitoring and Littering Identification in Public Spaces"

ADDITIONAL

Achievements :
Smart India Hackathon 2024 Finalist

- Developed an AI-based solution for satellite imagery interpolation under ISRO scientists' guidance, addressing real-time visualization challenges.
- Presented the project at the national finale at Gujarat Technological University, showcasing its impact on WebGIS applications like VEDAS and MOSDAC.

Technical Skills: Advanced in Django, MySQL, Mongo-DB, JavaScript, python, C, Java, Enhancing expertise in React, Artificial Intelligence , System Design, GraphQl, Neo4j
Tools : Jupyter Notebook, Google Colab, Microsoft Office, Git, Vercel
Languages: Native Tamil , Fluent in English