Vinoth Kumar Thoppae Sethu Raman

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Education

Thiagarajar College Of Engineering   **July 2022 – Present**
Bachelor of Technology - Information Technology   Madurai, Tamil Nadu

Technical Skills

Programming and Database: Python, Java, HTML, CSS, SQL
Tools and Frameworks: Computer Vision, TensorFlow, Pandas, Keras
Domain: Artificial Intelligence (AI), Machine Learning (ML), Deep Learning (DL), Web Development
Operating Systems: Windows, Linux, MacOS

Projects

AI-Powered Recommendation System
Python, Google Generative AI API, pyttsx3, geocoder, pytz
- Created a smart engine offering food and movie suggestions based on user emotion, location, time, and mood.
- Integrated voice output and geolocation awareness for a personalized and immersive recommendation experience. [View]

AI-Powered Course Recommendation and Learning System
GenAI, YouTube Data API, ReactJS, Firebase
- Developed a YouTube-based learning platform with personalized course paths and video recommendations using Gemini Pro.
- Auto-generated quizzes and summaries with interactive Q&A from transcript data to aid learning. [View]

Automated Road Assessment System
Python, TensorFlow, OpenCV, Flask, HTML/CSS/JS, Render
- Created a web platform using CNN and image processing for pothole and crack detection with GPS tagging.
- Included heatmap visualization, defect severity estimation, and an admin dashboard for issue reporting. [View]

DocuWeb AI – Document and Web QA Chatbot
Flask, HTML/CSS, JavaScript, LangChain, Gemini Pro, FAISS
- Built a chatbot capable of answering questions from PDF, DOCX, XLSX, and web URLs using vector search and embeddings.
- Supported file uploads, session history, and multi-turn chat, enhancing document and web searchability. [View]

SHA512 Web Tool – Client-Side Secure Hash Generator
HTML/CSS, JavaScript, GitHub Pages
- Built a lightweight, client-side web application to generate SHA-512 hashes from user input text or uploaded files, ensuring complete privacy with in-browser processing.
- Implemented features like instant hash generation, support for large files, dark/light theme toggle, and full mobile responsiveness. [View]

Experience & Internships

STAR BLIND WELFARE TRUST PORTFOLIO SITE
HTML/CSS, JavaScript, Bootstrap, GitHub Pages
- Created and launched a responsive website to highlight the services and activities of the STAR Blind Welfare Trust. Implemented accessible design and contact forms to support visually impaired individuals. [View]

TCE HR CONCLAVE 2025 WEBSITE
ReactJS, Firebase, Tailwind CSS
- Developed and deployed the official event site for the "National Innovation Conclave 2025" using ReactJS, Tailwind CSS, and Firebase, with features including speaker bios, schedules, and registration. [View]

Publications

Driver's Buddy - Drowsiness Detection and Emotion Based Food Recommendation System (IEEE)
[VIEW]

Certifications

- Completed **AWS Academy Cloud Architect** offered by AWS Academy.
- Certified as a **Software Developer Trainee** at Ace Computer Center, Madurai.

Achievements

- Winner at **HackFest INFINIX'25** at Thiagarajar College of Engineering for developing an innovative web solution.
- Runner (2nd Prize) at **NeonHacks'25** at Velammal College of Engineering and Technology for developing an AI-integrated personalized learning system.