THANGARAJ M

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Professional Summary

Passionate and detail-oriented software developer with a strong foundation in programming and computer science. Skilled in multiple languages and tools, driven to create innovative solutions that deliver high-impact results for both businesses and users in dynamic environments.

Core Competencies

Programming Languages: Python, Java, JavaScript, PHP, HTML, CSS
Machine Learning & AI: TensorFlow, OpenCV, Streamlit, Grad-CAM, Pandas, Matplotlib, Scikit-learn
Databases: MySQL, Firebase, MongoDB
Tools & Platforms: Git, VS Code, Android Studio, Groq API, Yagmail, FPDF, Jupyter Notebook, Google Colab
Soft Skills: Problem-Solving, Team Collaboration, Analytical Thinking, Effective Communication

Professional Experience

Software Development Intern at **VCOLLAB**, bangalore.   January 2025 – April 2025

- Developed a Medical AI Agent for Tuberculosis Prediction and Reporting, utilizing the InceptionV3 CNN model and Grad-CAM for detecting tuberculosis from chest X-ray images.
- Built an interactive Streamlit UI integrated with Groq API and Yagmail for real-time dianosis and automated reporting, improving diagnostic efficiency.
- Conducted data preprocessing and visualization with Matplotlib and FPDF, enhancing interpretability of AI predictions for medical professionals.

Projects

DCSA Library   December 2024 - March 2025

- The Library Management System is a digital solution developed to streamline book transactions, track user activity, and manage fines efficiently for our department library. It simplifies book issues/returns, ensures timely returns, and enhances overall library operations.
- Tools used: HTML, CSS, JavaScript, PHP, MySQL

Paddy Leaf Disease Finder   June 2024 - November 2024

- Built an Android app that detects paddy leaf diseases in real-time using ML algorithms and image processing.
- Tools used: ML, Android, OpenCV

Sustainable Fertilizer Usage Optimizer   June 2024 - November 2024

- Designed an IoT-integrated Android app to recommend optimal fertilizer usage based on soil analysis using machine learning and IoT connectivity.
- Tools used: IoT, ML, Android

Society Labor Management App   August 2024 - October 2024

- Built an Android app with Firebase to connect unemployed laborers with job opportunities in local communities.
- Tools used: Android, Firebase

Sweet Shop Management System   January 2024 - April 2024

- Developed a user-friendly desktop application to manage daily operations of a sweet shop. The system includes modules for inventory management, billing, sales tracking, customer management, and employee records.
- Tools used: Java Swing, MS Access, JDBC

Education

The Gandhigram Rural Institute, Gandhigram, Master of Computer Applications   August 2023 – May 2025
- CGPA: 8.4/10 (up to 3rd semester)

Arignar Anna Govt. Arts College, Cheyyar, BS in Mathematics   August 2020 – May 2023
- CGPA: 8.1/10

Certifications

- The Joy of Computing Using Python (76%), Data Structures and Algorithms in Java (66%) - SWAYAM NPTEL
- Achieved Gold Badge in Java and Python on HackerRank for outstanding problem-solving skills.

Achievement

- **Coop Pitch Competition 2024**: Competed at IIM Kozhikode (Oct 16-18, 2024) earning a certificate from the Vice Chancellor of The Gandhigram Rural Institute for innovative project presentation.
- Secured 1st prize in the Hackathon event during the National Science Day Competition.