SUBRAMANI RAJA R

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Portfolio: https://subramani-raja.vercel.app
Madurai - 02

Executive Summary

A passionate technologist with expertise in **web development**, **deep learning**, and emerging **AR/VR technologies**. Skilled in modern frameworks, **User Interface design (UI)**, and AI-driven automation, with a strong focus on computer vision and intelligent systems. Recently exploring **3D modeling** and AR/VR to create immersive, scalable applications that enhance user experiences and push technological boundaries. Excited about opportunities to contribute skills and collaborate on innovative projects.

Education

HSC

B.E COMPUTER SCIENCE AND ENGINEERING

CGPA - 7.94 (Present)

Ramco Institute Of Technology 2022 – 2026

PERCENTAGE - 78%

Raja Matric Hr Sec School 2022

Technical Skills

- **Programming Languages :** C, Java.
- Frontend: HTML, CSS, JS, React, PHP, Tailwind CSS.
- Backend : Nodejs, Express.
- Databases : Mysql, Mongodb.
- Tools: Word, Figma, Canva, Github, VOTT(Visual Object Tagging Tool for Dataset Augmentation).
- Familiar: Python, Dotnet, TensorFlow, Unity3d, Vuforia, 3D Modelling and Block Chain Technologies.

Projects

Audio Query Information Retrieval + ASR(Automatic Speech Recognition) (2024)

Developed an AI-driven system to provide accurate, voice-based information retrieval for Indian farmers regarding sandalwood cultivation, policies, and export regulations.

- Implemented Automatic Speech Recognition (ASR) using Whisper to process farmers' queries in audio format.
- Utilized SBERT embeddings with FAISS indexing for efficient retrieval of relevant answers from a large document corpus.
- Integrated **Kannada language support** by translating responses to enhance accessibility for regional farmers.
- Optimized retrieval accuracy through fine-tuning SBERT, metadata filtering, and embedding compression.

Tech Stack: Python, Whisper ASR, SBERT, FAISS

Inventory Management System(Full Stack) (2024)

Designed and developed a role-based Inventory Management System to streamline order processing, stock tracking, and report generation.

- Built user roles (Admin, Inventory Manager, User/Customer) for controlled access and management.
- Implemented an **order processing workflow** where users/customers can **place orders**, and **inventory managers** & **admins verify them**.
- Automated stock level updates upon order dispatch to ensure accurate inventory tracking.
- Enabled admin report generation for orders, suppliers, and stock in PDF format.
- Developed a **MySQL** database for efficient inventory storage and retrieval.

Tech Stack: PHP, MySQL, HTML, CSS

Person Identification Using Vision Transformers (Present – 2025)

Developing an AI-driven person identification system using deep learning for real-time recognition in school/college environments.

- Created a **custom dataset** of face images from 10 college mates, capturing **different lighting conditions and face** angles.
- Annotated images to enhance training data quality.
- Applied data augmentation techniques to increase dataset diversity.
- Currently implementing a **Vision Transformer (ViT) model** for improved accuracy in person identification.

Tech Stack: Python, OpenCV, TensorFlow/PyTorch, Vision Transformers (ViT)

Pizza Ordering Application (UI / UX)

(2024)

Demo Link: Pizza Ordering App - Figma

Designed an engaging and interactive pizza ordering app in Figma, focusing on visual appeal and user retention.

- Created **smooth animations and micro-interactions** to enhance user engagement.
- Used a warm color palette (reds, yellows, and whites) to evoke hunger and excitement.
- Designed **dynamic hover effects**, **button transitions**, **and loading animations** for an immersive experience.
- Ensured a **responsive and visually appealing UI** with intuitive navigation.
- Optimized **contrast and typography** for readability and accessibility.

Tools Used: Figma, UI Animation Techniques

Achievements

- I conducted a **web designing contest** for around 30 students to assess their web design skills and received positive feedback from the participants.
- I attended a **6-day workshop and hackathon** in the field of **cybersecurity**. At the end of the hackathon, I received a **Certificate of Excellence** from the organizing team.

Courses And Certifications

- Programming In Java Nptel
- ❖ Foundation Of Ux Design Coursera
- ❖ Build Wireframes And Low Fidelity Prototypes Coursera
- ❖ Blockchain Foundation Program Kerela Block Chain Academy
- ❖ Introduction To Front End Design Coursera
- ❖ Certification Of Participated In The ML-Fiesta: AI/ML Hackathon Of The Synergy'24 By IIT Bangalore.