SUBRAMANI RAJA R

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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.

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.

Education

B.E COMPUTER SCIENCE AND ENGINEERING   **CGPA - 7.75**
Ramco Institute Of Technology   (Present)
2022 – 2026

HSC   **PERCENTAGE - 78%**
Raja Matric Hr Sec School
2022