VIGNESH D

+91 8870996008 | vigneshofficial.in@gmail.com | linkedin.com/in/vignesh-d | github.com/Vignesh2003

Education

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY — Tiruchirappalli
Bachelor of Technology in Computer Science Engineering - CGPA : 8.29 — *2021 – Present*

A.K.K.V Aarunadu Matriculation Higher Secondary School — Triuchirappalli
12th : 76.5 Percentage — *2020 – 2021*

Experience

Full Stack Developer — September 2023 – Novemvber 2023
The Website Makers

- Developed and maintained web applications using HTML, CSS, JavaScript, and React.js.
- Worked with back-end technologies like Node.js and Express.js for server-side logic.
- Implemented RESTful APIs for seamless communication between front-end and back-end.
- Worked with the team to create and manage 2 domains for application deployment.

Python and NLP Developer — May 2023 – August 2023
National Institute Of Technology Tiruchirappalli

- **Indian Language Editing Tool for Tamil (ILETT)** Advanced NLP Algorithms: Developed using Python, the Indian Language Editing Tool for Tamil (ILETT) incorporates sophisticated natural language processing algorithms such as Matrix Formation, N-Gram, and Edit Distance, ensuring precise grammar and spell-check functionalities.
- Extensive Dataset: Utilized a substantial 20GB corpus dataset to provide comprehensive language coverage and high accuracy in detecting and correcting errors in Tamil text.
- Web Interface Integration: Created a user-friendly website using React, Tailwind CSS, and JavaScript. Integrated the NLP backend, implemented in Python, with the web interface via Flask, enabling seamless interaction and real-time text editing.
- Robust Editing Features: Equipped ILETT with features like find and replace, spell check, statistical analysis, and autocorrection to offer a full-fledged editing tool for the Tamil language, enhancing user productivity.
- Enhanced Writing Assistance: Designed to improve the writing process for Tamil language users, ILETT provides real-time suggestions and corrections, similar to Grammarly, significantly enhancing the overall user experience and writing quality.

Projects

Darkcluster - Google Chrome Extension — October 2023 – Feburary 2024

- Developed Google Chrome Extension: Created to combat deceptive practices in e-commerce websites as part of the Dark Pattern Buster Hackathon 2023. *JavaScript, HTML, CSS, Chrome Extensions API.*
- Advanced Detection Algorithms: Identified user interface deception, subscription trickery, misleading product information, privacy intrusion, and forced account creation.
- Enhanced User Protection: Evaluated limited user choices, fake urgency and scarcity, hidden costs, and dark patterns in user reviews. Assessment: Ensured data transparency compliance with regulations like GDPR and CCPA, flagging potential violations.

Underwater Litter Detection and Aquatic Classification — October 2023 – November 2023

- Advanced Monitoring System: Utilized underwater cameras and Raspberry Pi to detect fish populations, leveraging Convolutional Neural Networks (CNN) and TensorFlow for real-time analysis.
- Sustainable Fisheries Management: Supported conservation efforts by providing real-time fish population data, aiding in the preservation of underwater ecosystems.
- Edge Computing Implementation: Demonstrated the feasibility of using CNN and TensorFlow on Raspberry Pi for effective fish detection and population monitoring, contributing to environmental conservation.

Web Development - Student Enrollment Form August 2023 – September 2023

* Full-Stack MERN Application: Developed a robust application to collect student biographical data during admissions, reducing paperwork and enhancing data processing efficiency.
* Google Cloud Integration: Utilized Google Cloud Platform services like Cloud Storage, Cloud Run, and App Engine for secure data storage and deployment.
* Website Integration: Created and integrated a new website for SRM IST Trichy with the existing site, streamlining the online presence and enhancing user experience.
* Improved Data Management: Streamlined the admission process with a secure and efficient digital solution, ensuring better data handling and accessibility.

RFID and Face Attendance System June 2022 – August 2022

* Integrated RFID and Facial Recognition: Combined RFID RC522 module with ESP8266 and Raspberry Pi 5 with a 5-megapixel camera, utilizing deep learning and Roboflow software for accurate facial recognition.
* Automated Attendance Management: Automatically marked attendance and sent data to the Evarsity Portal, ensuring accurate and efficient attendance tracking.
* Enhanced Security and Efficiency: Improved attendance accuracy, reduced manual errors, and prevented proxy attendance through advanced technology integration.

ACHIEVEMENTS

Won Second Prize in International Level Hackathon | *Python, Flask, React, IoT, Raspberry Pi 5* March 2024

- **Mitigation of Urban Heat Island**: Hardware Development: Created a device with temperature, humidity, and air quality sensors to monitor environmental conditions.
- Satellite Map Integration: Used satellite map APIs to analyze and identify urban heat islands in specific areas.
- Awareness Website: Developed a website to educate the public about urban heat island mitigation strategies and their importance.
- SMS Notifications: Sent SMS alerts to inform people about urban heat conditions and provided actionable instructions to reduce heat.
- Sustainability Focus: Addressed problem statements from E-Cell IIT Madras and Accenture, contributing to SDG goals 9 (Industry, Innovation, and Infrastructure) and 13 (Climate Action).

Won Second Prize in International Level Hackathon | *IoT,Firebase, MERN Stack* September 2023

- **Farm Sense** -Award-Winning Project Won International Second Prize at a hackathon organized by SRM KTR and Temenos, addressing sustainable agriculture through smart technology.
- Comprehensive Monitoring System: Utilized Raspberry Pi, capacitive soil moisture sensors, NPK sensors, and waterproof temperature sensors to monitor soil health and predict crop conditions.
- Automated Irrigation: Integrated weather API to calculate temperature and weather conditions, automatically managing irrigation based on real-time data.
- Farmer-Friendly Interface: Developed a website with a dashboard for monitoring farm analytics, providing daily IVR or SMS updates, and supporting multiple local languages, including Tamil, Hindi, and English.

Technical Skills & Soft Skills

Programming Languages: C, Java, Python, SQL, HTML/CSS , JavaScript
Frameworks: React, Node.js, Flask, WordPress
Libraries: Tensorflow, Pandas, NumPy, Matplotlib
Softwares: Adobe Photoshop, Adobe Premier Pro , Figma,Coreldraw, Axure RP

Certification courses

NPTEL: Cloud Computing Elite Certification - 64%
Service Now : Micro Certification -Welcome to Service now
European Open University: Diploma in Software Engineering
Cisco Thingqbator : Mobile App Development

Languages Known

English , Tamil , Telugu