Vasudha A M

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EDUCATION

SJB Institute of Technology 2022 - 2026 Under the affiliation of Visvesvaraya Technological University (VTU)

BE/BTech in Computer Science & Engineering CGPA - 8.05/10

Sadhana PU College

Karnataka Secondary Education Examination Board, Karnataka Percentage - 78%

Sri Jnanakshi Vidvaniketan

CBSE Board, Karnataka Percentage - 78%

PROJECTS

EcoTrack: Dynamic Geofencing-Based Waste Management Platform

Present

2022

2020

- Built a real-time waste tracking platform using Flask, PostgreSQL, and Firebase Cloud Messaging.
- Implemented dynamic geofencing with GeoPy and Shapely to notify users based on a garbage collector's live location.
- Developed user and collector modules with location-based alerts and AI-enabled complaint handling (images/videos).
- Designed a responsive frontend using HTML, CSS, JavaScript, and Leaflet.js for live map visualization.

GoTogether: Smart Ride-Sharing & Rewards Platform for Smart Mobility

March, 2025

- Developed a multi-functional **progressive web app** enabling pooling and reward-based ride-sharing.
- Built a scalable backend using Node.js, Express, and MongoDB, ensuring high performance and reliability.
- Built the frontend with **React.js** for a seamless booking experience.
- Integrated Google Maps API for real-time route optimization.
- Implemented a SmartCar API for vehicle data access and tracking.
- Integrated Razorpay API for secure payments and reward redemption.

CogniChat: A Cognitive Assessment Therapist

December, 2024

- Developed a mental health chatbot using BERT, GPT, Flask, and MongoDB.
- Integrated dynamic **persona switching** based on real-time emotion detection.
- Designed a user-friendly interface with HTML, CSS, and JavaScript.
- Achieved fast, scalable performance with NLP-based optimization.

PillPal: Your Daily Dose Wingman

October, 2024

- Developed PillPal, a Telegram bot that manages medication reminders and provides AI-generated diet and exercise suggestions
- Integrated MongoDB for user data storage and OpenAI GPT for personalised health recommendations
- Utilised **Python asyncio** for handling asynchronous tasks and scheduling reminders
- Implemented regular expressions for validating user input, such as tablet names and doses

TECHNICAL SKILLS

- Programming: Python, C, Data Structures & Algorithms, HTML, CSS, JS, PHP
- Database: SQL, MongoDB Development: Git & GitHub
- Tools and Frameworks: Flask, React, GPT, BERT, XAMPP, Canva, VSCode, Eclipse
- Others: Operating Systems, Computer Networks
- SoftSkills: Communication, Problem-Solving, Teamwork, Time Management, Adaptability

AREA OF INTEREST

- Generative AI
- Blockchain Technology

ACTIVITIES AND ACHIEVEMENTS

- Participated in BGSCET 24 hour Advaya Hackathon
- Participated in SIET Tumkur 24 hour "National Level" Hackathon
- Achieved a top 20 position in SKIT "Build For Bengaluru" 12 hour Hackathon
- Achieved a top 5 position in a college-level Python coding competition.
- Conducted Awareness program on effective usage of social media to high school students