Shigivahan Athithan

Thoothukudi | shigivahanathithan@gmail.com | +91 9344718155 | shigivahan.com | linkedin.com/shigivahan
github.com/ShigivahanA

Education

Kalasalingam Academy of Research and Education, B. Tech in Computer Science — August 2021 – June 2025
- Cumulative GPA: 8.37

Nxtwave Disruptive Technologies — June 2022 – Present
- Industry Ready Certification in Full-stack Development

Sakthi Vinayakar Hindu Vidyalaya, Intermediate — June 2020 – April 2021
- Percentage: 80.4

Good Shepherd Model School, Secondary — June 2018 – April 2019
- Percentage: 85.7

Publications

Data Visualization and Analytics for Price Elasticity on Commodities Using Machine Learning Techniques — December 2023

Nagaraj P, *Shigivahan A*, Charan Vivek Raj R — ieeexplore.ieee.org/document/10452435

Ensemble Learning for Glioma Grading: Multi -Modal Feature Fusion Using ResNet50 and EfficientNet Variants on MRI Scans — May 2025

A. M. Gurusigaamani,*Shigivahan A*, Charan Vivek Raj R, Jaianandakrishnaa K, Alagu Veera Siranjivee D
Presented at 6th INCET 2025, Paper under review at IEEE Xplore.

Flavor Forecast: Optimizing Potato Chips Production through Demand Forecasting using Machine Learning Techniques. — April 2025

Vishnu Priya R,*Shigivahan A*, Charan Vivek Raj R, Jaianandakrishnaa K, Alagu Veera Siranjivee D
Presented at ICRDICCT'25, Paper under review at Scopus.

Projects

Price Elasticity Analysis of Commodities Using Machine Learning
- This project uses machine learning and OLS regression to optimize commodity pricing for better profits and customer retention in Quick Service Restaurants.
- Tools Used: Python-OLS regression and machine learning

Personalised Learning Recommendation — github.com/shigivahan/
- Developed an advanced Python and Streamlit app for personalized learning recommendations, featuring a secure user profile system and admin dashboard for content management, emphasizing web development, data management, and user experience.
- Tools Used: Python, Streamlit — tvaedunavigate.com

***LEVYLOOM* - Tax Calculator** — github.com/shigivahan
- Developed the LevyLoom Tax Calculator in 36 hours, available on Android, iOS, and web. It streamlines tax calculations, includes ChatGPT for quick assistance, and ensures a smooth experience on both mobile and desktop platforms.
- Tools Used: Flutter – dart language and Kotlin for API Access.

Glioma Grading — github.com/shigivahan
- Developed a multi-model glioma classification pipeline using ResNet50 and EfficientNet variants. Integrated deep feature fusion to enhance accuracy in HGG vs. LGG tumor grading.
- Tools Used: Python, TensorFlow, NumPy, and scikit-learn, Streamlit

Flavour Forecast – Potato Chips Demand   github.com/shigivahan

- Developed a forecasting tool using SARIMAX and Random Forest algorithms for time series prediction. Deployed an interactive interface with Streamlit for user-friendly data upload and visualization.
- Tools Used: Python, pandas, scikit-learn, statsmodels, and Streamlit

WebScrapping   github.com/shigivahan

- Developed a web scraping script using Puppeteer to extract and process article data from Medium, handling dynamic content and ensuring robust error management.
- Tools Used: Puppeteer, JavaScript, Node.js

AI-Powered Speech Analytics and Sentiment Visualization   github.com/shigivahan

- Developed a speech transcription prototype using Google Web Speech API and VADER for sentiment analysis. Designed a Pandas-based pipeline with Matplotlib visualizations, enhancing accuracy through audio preprocessing.
- Tools Used: Python, SpeechRecognition, NLTK (VADER), Pandas, Matplotlib, PyDub

Notes Application using MERN Stack   github.com/shigivahan

- Developed a secure Notes Application using the MERN stack, enabling users to create, edit, and manage notes seamlessly. Integrated MongoDB for login authentication and secure data storage, with a dynamic UI for an engaging experience.
- Tools Used: React.js, Node.js, Express.js, MongoDB, RestAPI's, Typescript

Calendar App - Efficient Event Management   github.com/shigivahan

- A React-based calendar app enabling users to efficiently manage events with features like add/edit, category filtering, and detailed modal views. Optimized for both desktop and mobile, it ensures smooth navigation and secure event handling.
- Tools Used: React, Node.js, CSS, JavaScript, MongoDB

AI-Driven Homeopathy Assistant with OpenAI and LangChain

- This project leverages OpenAI, Gradio, and LangChain to create a secure, scalable AI assistant for homeopathic medicine recommendations.
- Tools Used: Gradio, huggingface, Python, OpenAI

Certifications

Oracle Cloud Infrastructure 2023 Certified Data Science Professional	September 2023
Oracle Cloud Infrastructure 2023 AI Certified Foundations Associate	December 2023
Node.js Certification - CCBP 4.0, NxtWave Academy	July 2024
JavaScript Essentials Certification - CCBP 4.0 NxtWave Academy	July 2024

Achievements

Top 5, 36-hrs Hackathon: A 36-hour hackathon at AITR Indore. Built the LevyLoom Tax Calculator for Android, iOS, and web, making tax calculations easier. It incorporates ChatGPT for instant support and provides a seamless user experience across all devices.

First Prize, Web Development Competition: Successfully built and updated a website from scratch, meeting all test case criteria.

Second Prize, IBM's Distinguished Machine Learning Paper: Awarded 2nd place for a machine learning project among 100 entries.

Technologies

Languages: Python, SQL, HTML, CSS, JavaScript, React, Node, R(Beginner).

Platforms and Framework: TensorFlow, Keras, scikit-learn, Power BI, Tableau, Data Analytics, Figma, Android Studio, GIT, Express(node),Next.js, MongoDB, MS Excel, REST API, HuggingFace, Gradio.