D.K.VIJENDRAKUMAR

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Profile Summary

Driven engineering student with hands-on experience in building responsive web applications and integrating RESTful APIs. Skilled in frontend and backend development with a focus on clean design and functionality. Strong collaborator with a solution-oriented approach to real-world challenges.

TECHNICAL SKILLS

Languages: Java, Python, C/C++, JavaScript, SQL

- Web Development: HTML, CSS, React.js, Node.js, Express.js

Concepts: DSA, OOP, DBMS

- **Developer Tools**: VS Code, AutoCAD, Fusion 360, Postman, Git

Python Libraries: Pandas, NumPy, Matplotlib, scikit-learn, Seaborn

Database: MongoDB

Other: MS Excel

CERTIFICATES:-

• **Power BI Workshop** – Data visualization techniques

IoT and Robotics Workshops – Hands-on sessions

• NPTEL Java Certificate – Programming in Java

PROJECTS

Perfume Shop Web Application

Feb 2025 - Feb 2025

Tech Stack: React.js, Node.js, Express.js, MongoDB, Axios, CSS

- Developed a full-stack web application to manage a perfume inventory with seamless CRUD operations.
- Designed a responsive React frontend with dynamic search/filter functionality.
- Created backend APIs using **Node.js & Express**; stored and retrieved data using **MongoDB**.
- Displayed perfume details in card layout with image support and real-time updates.
- Integrated **Axios** for client-server communication and tested endpoints using **Postman**.
- Implemented features like **responsive navbar** and optional **dark mode toggle**.

Realtime Chat Application

Feb 2025 - Feb 2025

Node.js | Socket.io | HTML | CSS | JavaScript

- Developed a real-time **chat** web application using **Socket.io** for live two-way communication between users.
- Implemented features like user join/leave notifications, message broadcasting, and audio alerts.
- Built the backend with **Node.is**, handling multiple client connections and message routing.
- Gained hands-on experience with websockets, event-driven programming, and client-server architecture.

Weather App

- Developed a responsive weather app using HTML, CSS, and JavaScript, with OpenWeatherMap API integration to fetch real-time weather data.
- Features include search functionality, dynamic weather display (temperature, humidity, wind speed), error handling for invalid city names, and responsive UI design.
- Improved skills in API integration, DOM manipulation, asynchronous JavaScript, and responsive design.
- Technologies: HTML5, CSS3, JavaScript, OpenWeatherMap API.

Online Quiz App

Tech Stack: HTML, CSS, JavaScript

- Developed a responsive quiz app with multiple-choice questions and real-time answer validation.
- Highlighted correct/incorrect answers with color feedback and displayed final score after submission.

Gym Attendance Behavior Prediction using Machine Learning

Oct 2024 - Nov 2024

- **Enhanced prediction accuracy** by developing and training machine learning models (Random Forest and Logistic Regression), achieving **100% accuracy** in distinguishing typical and atypical gym behavior.
- **Improved operational efficiency** by analyzing entry patterns and identifying peak gym hours, helping optimize gym usage and minimize overcrowding.
- **Extracted actionable insights** on visit frequency and session durations, leading to better allocation of resources and potential **gym utilization increase** from **70% to 90%**.
- **Enabled data-driven decision-making** for gym management by visualizing key patterns, including visitor trends and high-demand periods, to enhance scheduling strategies.
- **Reduced potential wait times and maximized gym capacity** through insights into attendance spikes, supporting smoother visitor flow and resource planning.

Tech Stack: Python, Pandas, Scikit-Learn, Matplotlib, Random Forest Classifier, Logistic Regression

Customer Churn Prediction Project (End-to-End Data Science & Deployment)

- **Description**: Developing an end-to-end machine learning project to predict customer churn based on user data (e.g., Age, Tenure, Monthly Charges), with plans to implement deep learning for further accuracy improvement.

Key Contributions:

- **Data Analysis & Preprocessing:** Performed data cleaning, handled missing values, encoded categorical variables, and scaled numerical features.
- Model Building & Hyperparameter Tuning: Trained multiple classification models (Logistic Regression, KNN, SVM, Decision Tree, Random Forest) and optimized them using GridSearchCV. Achieved 88.5% accuracy with SVM.
- Ongoing Work: Exploring and implementing deep learning techniques (ANN) to further enhance prediction accuracy.
- **Deployment:** Built and deployed the current model using **Streamlit**, providing a user-friendly interface for real-time churn predictions.
- Tech Stack: Python, Pandas, NumPy, Matplotlib, Scikit-learn, Streamlit, Joblib.

Personal Portfolio Website

Tech Stack: HTML, CSS, JavaScript

- Designed and developed a fully responsive portfolio website to showcase projects, skills, and contact information.
- Implemented smooth navigation and an interactive user interface to enhance user experience.
- Optimized the website for all devices using modern CSS techniques, including Flexbox and Media Queries, ensuring seamless performance across various screen sizes.

EDUCATION

Indian Institute of Information Technology, Design and Manufacturing (IIITDM) Kancheepuram

B-Tech in Smart Manufacturing.

Nov.2022-July.2026

DDU International School & Narayana College Karnataka

12th-93% Aug. 2018 – July. 2022