

D K VIJENDRA KUMAR

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LinkedIn

Portfolio

GitHub

Summary

Full-stack developer with a strong focus on data analytics and AI-driven systems. Experienced in building scalable web applications, integrating real-world datasets, and applying machine learning models to deliver reliable, business-focused insights using modern full-stack technologies.

Education

Indian Institute of Information Technology, Design and Manufacturing Kancheepuram

Nov 2022 – Jul 2026

B.Tech in Smart Manufacturing Engineering (IT)

Chennai, India

- CS Fundamentals: DSA, Object-Oriented Programming, Computer Networks, Operating Systems, Database Management Systems

Skills

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

Frontend: React.js, HTML5, CSS3, Tailwind CSS, Redux

Backend: Node.js, Express.js, Python (FastAPI), API Development (RESTful), JSON Web Token (JWT), Cloud Computing

Databases: MongoDB, MySQL

Python Libraries & Tools Platforms: Pandas, NumPy, Matplotlib, Seaborn, Git, GitHub, Postman,

Experience

Full-Stack Developer Intern (Data & Analytics)

May 2025 – July 2025

IITDM Kancheepuram Chennai

- Developed a full-stack web application using React.js and Express.js to visualize real-time sensor data and predict milk fat content.
- Collected and analyzed ~ 500 real-world milk samples using an existing sensor setup, enabling data-driven fat estimation.
- Built and validated linear and polynomial regression models, achieving **91% prediction accuracy** when benchmarked against the industry-standard Gerber method, improving reliability of automated quality assessment

Projects

AI Data Assistant – RAG-based SaaS Application

GitHub

Node.js, Express, MySQL, Pinecone, Groq LLM, React.js, Recharts

- Built a **multi-tenant RAG system** enabling users to query both structured (MySQL) and unstructured (PDF) data with isolated JWT-based access.
- Implemented a **PDF ingestion pipeline** with text extraction, chunking, and **local BGE embeddings** stored in Pinecone for semantic retrieval.
- Developed a **natural language to SQL engine** using Groq LLM with SQL dialect fixing and safety enforcement for analytical queries.
- Designed a **ChatGPT-like React dashboard** with automatic chart generation (Recharts) and persistent chat history.
- Tech Stack: Node.js, Express, MySQL, Pinecone, Xenova BGE Embeddings, Groq LLM, React.js, Recharts.

Athlete Performance Tracker with AI Insights – Full-Stack Web App

GitHub

React.js, Node.js, Express.js, MongoDB, JWT, Google Gemini API

- Developed a **full-stack MERN application** to log athlete workouts, visualize performance trends, and generate AI-driven insights.
- Implemented **JWT-based authentication** with protected routes and secure user-specific data access across the application.
- Built robust **workout management modules** supporting manual entry and bulk CSV uploads with server-side validation.
- Designed an **interactive analytics dashboard** using Victory Charts to display workout statistics, trends, and distributions.
- Integrated **AI-powered performance analysis** using Google Gemini API to provide personalized training insights and recommendations.
- Enabled **PDF report generation** with dynamic date filtering for exporting workout logs and training plans.
- Structured backend APIs with Express.js and stored data in **MongoDB**, ensuring scalability and maintainable RESTful design.

AI-Powered Medical Report Reader

GitHub

React, Vite, Node.js, Express, Groq API, Tesseract.js

- Built a **full-stack AI web app** to convert medical reports into patient-friendly summaries using **Llama 3.1 via Groq API**.
- Implemented **multimodal input** with text and image OCR (**Tesseract.js**) and document validation.
- Developed an **interactive Q&A chat** and **multi-language translation**, including Indian languages.

Positions of Responsibility

- **Placement Coordinator, Training and Placement Cell** (April 2025 – Present): Coordinated with companies for internships and placement opportunities.

Awards & Certifications

- **NPTEL Certifications:** Silver medals in *Programming in Java*, *Joy of Computing using Python*, and *Cloud Computing*.