D K VIJENDRA KUMAR

📞 +91-8951742951 ✉ dkvijendra04@gmail.com 🔗 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, Cloud Computing, JSON Web Token (JWT), API Development (RESTful)
Databases: MongoDB, MySQL
Analytical Abilities: Data Cleaning, Exploratory Data Analysis (EDA), Insight Generation, Descriptive Statistics
Python Libraries & Tools Platforms: Pandas, NumPy, Matplotlib, Seaborn, Git, GitHub, Postman,

Experience

Full-Stack Developer Intern (Data & Analytics)   May 2025 – July 2025
IIITDM 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.

MERN Task Distributor – Full-Stack Web App   **GitHub**
React.js, Node.js, Express.js, MongoDB, JWT
– Developed a **full-stack web application** with a 3-tier hierarchy (Admin→Agent→Sub-agent) using React.js and Node.js.
– Implemented **JWT authentication** and role-based access controls for secure CRUD operations.
– Automated **bulk CSV/XLSX uploads** to assign tasks from Admin to Agents and Sub-agents.
– Built a **real-time admin dashboard** with duplicate detection and system-wide monitoring.
– Created **responsive agent portals** for task management and sub-agent administration.
– Deployed backend on **MongoDB Atlas** and optimized REST APIs for scalability.

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*.

– **National Road Safety Hackathon (2024):** Participated in NHAI-organized hackathon and contributed to road safety solutions.