SANATH KUMAR KUNJITHAYA

Mangalore, Karnataka
+91 8150930743 kunjithayas@gmail.com Linkedin Github

EDUCATION

Sahyadri College of Engineering and Management, Mangalore **2021 – 2025**
B.E - Artificial Intelligence and Data Science - ***CGPA 8.93*** *Mangalore, Karnataka*

EXPERIENCE

AIRAT Systems, NIT, Karnataka **January 2025 - May 2025**
Role - AI Intern *Mangalore, Karnataka*

- Developed OncoAide, an AI-powered oncologist assistant that enables natural language querying over patient records, significantly reducing clinical workload and improving decision-making efficiency.
- Built a full-stack Retrieval-Augmented Generation (RAG) application using React.js, FastAPI, and MongoDB, combining structured data retrieval with DeepSeek R1 (via Groq Cloud) to deliver accurate, context-aware LLM responses.
- Engineered end-to-end pipelines for real-time patient data processing, automated summarization, and intelligent assistant interactions, streamlining oncologist workflows in clinical settings.

Technical Career Education **October 2023 - November 2023**
Role - Full Stack Development Intern *Mangalore, Karnataka*

- Led the collaborative development of web applications in a 4-member team, leveraging MongoDB, Express.js, React.js, and Node.js, resulting in a 30% reduction in load times and a 60% increase in user satisfaction.
- Contributed to the development of interactive and user-friendly interfaces.
- Implemented backend functionality while adhering to industry best practices.

TECHNICAL SKILLS

Languages: Python, JavaScript, Java, C, SQL, HTML, CSS
Frameworks/Technologies: React.js, Express.js, FastAPI, TensorFlow, Scikit-learn, Pandas
Tools/IDEs: VS Code, Jupyter, Git, Apache NetBeans
Databases: MySQL, Oracle, MongoDB
Cloud Platform: Microsoft Azure

PROJECTS

Microbial Insights: Predictive Crop Analysis | React, FastAPI, Scikit-learn, XGBoost **2024-2025**

- Engineered a full-stack predictive analytics platform for arecanut yield forecasting using ensemble ML models trained on soil nutrient and microbial profile datasets.
- Replaced Streamlit with a scalable React-FastAPI architecture, enabling dynamic user interaction, real-time model inference, and improved system performance.
- Integrated LLaMA 4 (LLM) to generate contextual summaries of ML outputs, enhancing agricultural decision-making with natural language insights.

Ciniphiles | MongoDB, Express.js, React.js, Node.js **2023**

- Architected a scalable MERN stack platform integrating external movie data and user-generated content, enabling dynamic movie card management and real-time metadata retrieval.
- Developed optimized RESTful APIs with Express.js and MongoDB, implementing advanced querying and indexing to support low-latency CRUD operations and ensure seamless frontend-backend synchronization.
- Implemented a modular, component-driven React architecture with efficient state management and asynchronous data flows, facilitating rapid feature development and smooth user interactions.

Hostel Administration Management System | MySQL, Java, JDBC **2023-2024**

- Developed a responsive interface for seamless navigation and operations, integrating MySQL and Apache NetBeans for efficient backend and frontend communication.
- Optimized database schemas and queries, enhancing data retrieval speed by 35% and ensuring secure storage of student and room information.
- Implemented scalable administrative tools, enabling the addition, modification, and deletion of student and room details, improving overall data management by 40%.
- Automated fee calculations linked to room selection, reducing administrative workload by 50% and enhancing accuracy.