KANISH B M

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SUMMARY

Software Engineer with strong expertise in **competitive programming**, **data structures**, and **problem-solving**. As a **SIH 2024 Finalist**, I leverage **AI** and **ML** to deliver **scalable, intelligent solutions**. With proven experience in **Front-End Development** and growing expertise in **Back-End Development**, I specialize in applying advanced **AI & ML techniques** to build **high-performance**, **user-friendly**, and **innovative technologies**.

EDUCATION

Bannari Amman Institute of Technology	Sathyamangalam, Tamilnadu
B.E. Computer Science and Engineering – CGPA: 8.2 (upto 4th sem)	*Sept. 2023 – April 2027*
SKV Matriculation Higher Secondary School	Namakkal, Tamilnadu
Tamil Nadu State Board – 2023 batch – 94.00%	*2021 – 2023*

PROJECTS

AI-Based Financial Services Platform for India Post | Smart India Hackathon'24 Finalist
- Developed an AI platform to predict **seasonal financial needs** based on demographics and farming cycles, enabling **targeted service delivery** across India Post's customer network.
- Built a **scalable web interface** using **Next.js** integrated with **RAG** and **LightGBM models** on **Google Cloud**, achieving **85% accuracy** in personalized service recommendations.

FITPOSE – AI-Powered Virtual Trainer
- Developed an **AI-powered virtual trainer** using **Python, OpenCV, and Mediapipe** to monitor posture and track exercises in real time.
- Implemented **rep counting and feedback system** with joint angle detection, live skeletal overlay, and corrective guidance (e.g., "Keep your back straight").
- Enhanced user experience with **progress tracking**, generating workout summaries (**reps, sets, accuracy, graphs**) and ensuring robust performance under varied conditions.

AI-Driven Railway Traffic Control System
- Built an **AI system** for conflict-free, IRO-compliant train scheduling using **Genetic Algorithms (GA)** and **Reinforcement Learning (RL)**.
- Designed a **simulation sandbox** for safe schedule testing and real-time adaptation to disruptions.
- Reduced **controller decision time** to <2 minutes and minimized delays by **35%**.

SKILLS

Languages: Java, C, Python, JavaScript
Frameworks & Libraries: Next.js, React.js, Node.js, Express.js, NumPy, Pandas, LangChain, Hugging Face, Selenium, Playwright
Workflow Automation & No Code Tools: N8N, Make
Databases & Cloud: MongoDB, MySQL, Google Cloud Platform (GCP)
Developer Tools: Git, GitHub, Figma, Postman, Vercel, Render

ACHIEVEMENTS & LEADERSHIP

Smart India Hackathon 2024 – Finalist: Improved rural service delivery by 40%, automated tasks saving 120+ hrs/month.
HackFest 2024 – Regional Round Qualifier: Blockchain-based solution for transparent disaster relief fund utilization.
Bag-It Hackathon – Semi-Finalist: Eco-friendly "Ripped Cloth Blend Manjappai Bag" from textile waste.
House Captain, R.N. Oxford Matric School: Led team activities, coordinated events, and motivated peers.
Member, National Green Corps (NGC): Participated in environmental initiatives and sustainability awareness programs.