Karan S D

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EDUCATION

CAMBRIDGE INSTITUTE OF TECHNOLOGY – Bangalore   2022 - 2026
Bachelors of Technology in Computer Science and Engineering   **CGPA: 8.6/10**

Lake Montfort School – Bangalore   2021 - 2022
Senior Secondary (Class XII)   **Percentage: 90.5**

PROFESSIONAL SUMMARY

Full Stack Developer with experience in building scalable web applications using **React**, **Next.js**, **Node.js**, **JavaScript**, and **Tailwind CSS**. Strong foundation in data structures, cloud concepts, and database technologies including **MySQL** and **MongoDB**. Skilled in creating responsive UIs, secure authentication systems, and efficient **RESTful APIs**. Passionate about developing user-centric, high-performance solutions.

TECHNICAL SKILLS

- **Programming Languages:** Java, Python, C.
- **Frontend and UI/UX:** HTML, CSS, Tailwind CSS.
- **Database:** MySQL.
- **Developer Tools:** Visual Studio Code, Git, GitHub, IntelliJ, Vercel.

RELEVANT COURSEWORK

Data Structures, Google Cloud Console, Internet of Things (IoT), Database Management System, Figma, Operating Systems, Natural Language Processing.

PROJECTS

AI-Powered Healthcare Diagnostic Platform | Full-Stack web App ⬏

- Built full-stack healthcare app with **React 18**, **Express.js**, and **Google Gemini model** to analyze symptoms and predict diseases with 85%+ confidence using machine learning and **NLP algorithms.**
- Developed medication interaction system leveraging **large language models (LLMs)** and prompt engineering for drug-drug interaction detection, severity classification, and automated scheduling with **Firebase** security rules
- Integrated **Google Maps API** and **geolocation services** to provide nearby hospital recommendations within 50km radius, reducing patient search time by 70% through automated distance calculation and **RESTful API** architecture
- Processing 1000+ symptom combinations through **natural language processing** and **machine learning algorithms**

macOS Inspired Portfolio ⬏

- Built pixel-perfect macOS web app with **React 19**, **Zustand** state management, and **GSAP** animations featuring draggable windows, file navigation, and real-time search across 50+ items.
- Architected scalable state management system handling complex window lifecycle, **z-index stacking**, and navigation history across 8+ interactive window types.
- Developed high-performance UI with **Tailwind CSS** and **GSAP** achieving 60fps animations, glassmorphism effects and macOS-authentic interactions

ASK Transport | Full-Stack Mobile App ⬏

- Engineered a **React Native** ride-sharing app with **Redux Toolkit** state management, **Google Maps API** integration for real-time routing/distance calculations, and cross-platform deployment (iOS/Android/Web).
- Implemented dynamic pricing engine with surge multipliers, live travel time tracking via **Distance Matrix API**, and authentication system using **React Navigation stack** for seamless user flows.
- Built scalable **TypeScript** based mobile architecture with MapView directions, autocomplete location search, and responsive UI using **Tailwind CSS** supporting multi-platform releases through **Expo framework**.

AWARDS AND ACHIEVEMENTS

- **Finalist**, **Samsung | SIC Hackathon Challenge 2025**: Selected as a finalist among hundreds of participating teams for developing an innovative software solution.

CERTIFICATIONS

- **Python** Foundation Certification (Infosys)
- **Java** Foundation Certification (Infosys)
- **Programming in Java** (NPTL)