MERIGALA BHARATH KUMAR

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About me

My name is Bharath Kumar Merigala, and I am passionate about becoming a MERN Full Stack Developer, with a strong foundation in DSA, problem-solving, and software development and optimization.

Education

Vellore Institute of Technology | September 2022 – June 2026

Bachelor of Technology - Computer Science and engineering **CGPA: 8.62** | *Chennai, Tamilnadu*

Sri Chaitanya Junior College | June 2020 – May 2022

Stream: Maths, Physics and Chemistry; Score: **97.7%** | *Khammam, Telangana*

Projects

Flight Routing | *React, Ai algorithms, Google maps API* — **May 2024**

- Developed a flight routing and tracking application using ReactJS, Google Maps API, and A, DFS, and other pathfinding algorithms to provide real-time flight locations, routes, and arrival times.
- Implemented efficient algorithms to calculate optimal flight paths and enable seamless tracking, enhancing user convenience and reliability.
- Designed an interactive and intuitive interface, ensuring a responsive user experience across devices and integrating real-time updates for accurate flight monitoring.

Oil Spill Detection | *React Native, Django, My SQL, Google maps API* — **October-November 2023**

- Developed an oil spill detection application using React Native, Django, and Google Maps API to identify and alert users about oil spills within specified areas.
- Implemented advanced geofencing algorithms to warn users within the spill radius, enhancing safety and awareness.
- Optimized user experience by designing a clean and responsive interface, integrating real-time notifications, and ensuring compatibility across Android and iOS devices.

Water Footprint Calculator | *ReactJS, NodeJS, ExpressJs, Mongo DB* — **September 2023**

- Developed an application that calculates water footprints to produce or manufacture our daily used products, demonstrating strong ownership and passion for quality.
- Led a team of 6 in the Smart India Hackathon, driving the project to successful completion.
- Optimized data persistence with MongoDB, achieving a 50% reduction in calculation time.
- Collaborated in a team of 6 to design and develop the application, reflecting my love for building software and working in teams.

Technical Skills

Frontend: JavaScript, React JS

Backend: Node.js, Express.js

DevOps: Docker, Kubernetes, AWS

Database: MySQL, MongoDB

Languages: Python, C++, Java, SQL, JavaScript, HTML, CSS