MOCHERLA CHANDRA KAUSTUB

Hyderabad | +91-8688461879 | mocherla.kaustub@gmail.com | https://www.linkedin.com/in/kaustub-mocherla/

SUMMARY

Computer Science student with hands-on experience in IoT, web development, and real-time systems. Built a WiFi-controlled RC car using ESP8266 and Blynk, showcasing strong skills in embedded systems and problem-solving. Proficient in C, Python, Java, HTML5, and MySQL. Known for initiative, teamwork, and delivering practical tech solutions.

EDUCATION

ICFAI Foundation for Higher Education | *Bachelor of Technology in Computer Science and Engineering*   **Aug 2023- Present**

- **CGPA : 8.93**

FIITJEE Junior College,Hyderabad | *Intermediate*   **March 2021 - 2023**
- **Percentage : 86.5%**

Delhi Public School,Hyderabad | *10th Board*   **June 2020 - 2021**
- **Percentage : 96%**

SKILLS

Languages : Python , Java , C
Web Technologies : HTML5 , Java Script , CSS , Bootstrap , AngularJS
Databases : MySQL
Tools : Google Sites , Git
Soft Skills : Leadership , Communication , Time Management , Teamwork

TECHNICAL PROJECTS

Community Skill-Sharing & Workshop Management Database | *SQL, ER Modeling, 3NF*   **April 2025 - Present**
- Designed a **6-table relational database** to manage users and skill-sharing events, enabling structured tracking of user roles and skill categories.
- Optimized schema design through **3NF normalization**, ensuring high-performance querying and flexible user-skill mapping for diverse workshop/session types.
- Structured a flexible **user-skill mapping system** that distinguishes between teaching and learning preferences across **20+ skill categories**.

AI-Powered Smart Waste Management System | *HTML, JS, Google Cloud Vision API, Firebase, Google Maps API*   **March 2025 - Present**
- Created an AI-enabled web app that classified waste types using **Google Vision API** and recommended nearby disposal centers via **Maps API, improving disposal accuracy.**
- Implemented **real-time bin tracking and smart route optimization** for municipal trucks, improving collection efficiency; deployed fully on Firebase using public datasets.
- Developed a **smart route optimization** module using geolocation and AI logic to enhance municipal collection efficiency and reduce fuel usage.

WiFi-Controlled RC Car | *ESP8266, C++, Blynk, PWM, H-Bridge Motor Driver*   **Nov 2024**
- Developed a WiFi-controlled RC car with **40% reduced latency,** enabling mobile-based control and real-time speed/direction adjustment using PWM and motor drivers.
- Engineered a power-efficient system that **increased operational runtime by 25%,** and implemented fail-safe protocols to ensure **95% command accuracy during WiFi disruptions.**
- Implemented **PWM speed control** and an **H-bridge motor driver**, delivering precise real-time acceleration, braking, and steering.

CERTIFICATIONS

- Exploratory Data Analysis
- Data Processing and Visualisation

EXTRA-CURRICULAR ACTIVITIES

- Awarded the **All-Rounder Badge** for excellence in academics, sports.
- **Captain** of the Delhi Public School Tennis Team; led participation in multiple inter-school tournaments.
- Represented school in **state-level art competitions**, demonstrating creative and visual skills.
- Actively participated in college **tech fests**, contributing to collaborative problem-solving and innovation events.
- Created academic and club websites using **Google Sites**