

KESHAV AGARWAL

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EDUCATION

•Indian Institute Of Information Technology, Ranchi

Ranchi, Jharkhand

B.Tech (Computer Science and Engineering) | CGPA: 8.66

2022 – 2026

PERSONAL PROJECTS

•🔗 EchoMind

2025 March

A Perplexity AI clone leveraging advanced search capabilities with LLM-powered response refinement.

GitHub

- Tools & technologies used: Flutter, Dart, FastAPI, WebSockets, Tavily API, Gemini, LLM, Git, GitHub
- Implemented search functionality using **Tavily API** to fetch relevant responses and compute the results based on the **dot product similarity** between the query and responses. Collected top 20 candidate responses and ranked them using similarity scoring.
- Performed vector comparison using **cosine similarity** to identify the **top 5 most relevant responses**, ensuring precision in result delivery.
- Integrated **LLM-based filtering** to refine the search results, improving response relevance and accuracy.
- Utilized **Google Gemini AI** for enhanced content understanding and result refinement.
- Developed a **FastAPI backend** with WebSocket communication for real-time response updates, ensuring a seamless and interactive user experience.

•🌿 EcoCredit

2025 June

A Flutter-based environmental awareness app rewarding users for recycling efforts with real-world incentives.

GitHub

- Tools & technologies used: Flutter, Dart, Firebase Authentication, Firebase Firestore, Firebase Cloud Functions
- Built a user-friendly mobile app where users can snap photos of recyclable items and submit them for approval.
- Integrated **Firebase Authentication** to securely manage user logins and sessions.
- Enabled users to share location details to facilitate pickup of recyclables upon admin approval.
- Provided real-time status updates using **Firebase Cloud Functions** to handle backend workflows.

•🎮 GuessGlow

2025 May

A Flutter-based **guessing game** where users attempt to guess a randomly chosen word within limited number of tries.

GitHub

- Tools & technologies used: Flutter, Dart, BLoC (Business Logic Component), Git, GitHub
- Developed a dynamic word guessing game with interactive feedback based on user input.
- Implemented color-coded hints: **Green** for correct letters in the correct position and **Yellow** for correct letters in the wrong position.
- Utilized **BLoC architecture** to effectively manage game states, user input, and UI responsiveness.
- Designed an engaging and intuitive UI to provide a fun and challenging user experience.

TECHNICAL SKILLS AND INTERESTS

Languages: C, C++, JavaScript, Python, Dart

Developer Tools: Git, GitHub, VS Code, Postman, Android Studio

Frameworks: Express.js, Node.js, Flutter

Cloud/Databases: MongoDB, MySQL, Firebase

State Management: Riverpod, Bloc, Provider

Coursework: Computer Architecture, Operating System, Software Engineering

Interests: Competitive Programming, Data Structures and Algorithms

ACHIEVEMENTS

- CodeRush-Algo University:** Achieved **1st rank** in Aglo Coding Quiz Contest, among **more than 1000** students.
- Codeforces:** Attained **Expert** rank with a rating of 1608 on **Codeforces**
- Coding Achievements:** Achieved **Green Coder** status on AtCoder with a rating of **more than 1050**.
- CodeChef Competitive Programming:** Reached **4-Star** rating with a maximum rating of **1870**.
- Coding Platforms:** Accomplished Knight Badge on Leetcode with rating of 1860
- Smart India Hackathon (Top 20 Regional Team):** Developed innovative solutions to real-world challenges as part of a collaborative team representing the college.

LEADERSHIP/EXTRACURRICULAR

•House Of Geeks

IIIT Ranchi

Coordinator of CP Wing

Nov 2023 – Nov 2024

- Organized the Quasar Hackathon, engaging **100+** participants and facilitating the development of 20 projects.
- Coordinated **15+** team formations for programming contests, mentoring 50+ participants to enhance their performance.