Submission Summary

Conference Name

INTERNATIONAL CONFERENCE ON EMERGING RESEARCH IN COMPUTATIONAL SCIENCE - 2024

Paper ID

1644

Paper Title

Campus Carpooling: Optimised Ridesharing for Students using Hybrid Ridesharing Algorithm(HRA)

Abstract

A student-centric carpooling service tailored to address the unique transportation needs of college students. The platform allows users to post their starting locations, available seats, and routes, while enabling other users to select their desired pick-up points. The service employs a machine learning algorithm to optimize the matching process between riders and passengers, ensuring efficient and convenient travel arrangements. A unique feature of the system is dynamic pricing, which adjusts based on demand and supply factors, offering flexibility in payment options for rides, which can be either paid or free, depending on the rider's choice. The platform incorporates user registration and authentication to maintain security and trust within the community, with profiles for both riders and passengers that include ratings and reviews to establish a reliable user base. The machine learning component utilizes clustering and optimization algorithms to reduce total travel time and distance, thereby enhancing the overall efficiency of the service. Additional features such as an integrated payment gateway for paid rides, identity verification, emergency contact information, and ride tracking are included to ensure safety. Inapp messaging and notifications provide seamless communication between users. An admin panel is also provided for the management of users, rides, and payments, ensuring smooth operations and quick resolution of issues. The project aims to develop a sustainable, efficient, and cost-effective carpooling system tailored for college students, promoting

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environmentally friendly transportation solutions on campuses.

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Submission Files

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