

# Car-Pooling System (CapX)

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**Abstract:** *With traffic congestion and environmental concerns on the rise, carpooling systems have become increasingly popular. This paper proposes a carpooling system that matches drivers and riders based on their travel preferences and routes using an advanced algorithm. The system considers factors such as pickup and drop-off locations, preferred departure time, and route to find the most compatible matches. Additionally, real-time updates are provided on the driver's location and the rider's estimated time of arrival. This carpooling system not only reduces traffic congestion but also lowers carbon emissions, promoting environmental sustainability. It also offers a safe and reliable alternative for individuals without access to private transportation or public transit. The proposed carpooling system has the potential to transform commuting, providing a practical solution for a more sustainable future.*

**Keywords:** Carpool, Traffic, Route, Travel, Private, Public, Location.

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