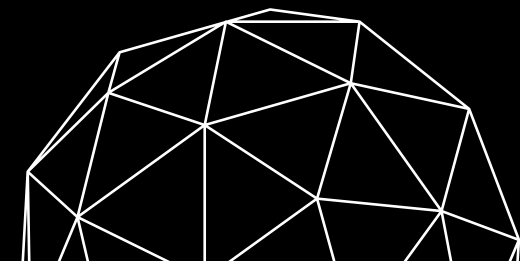
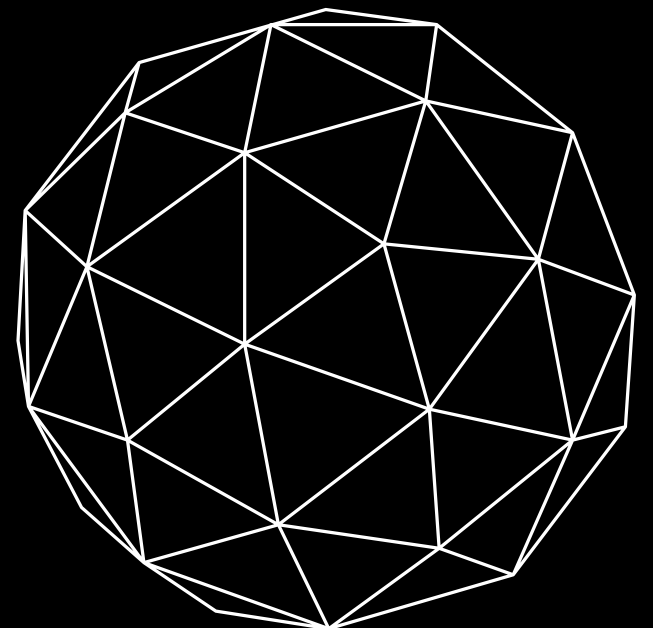
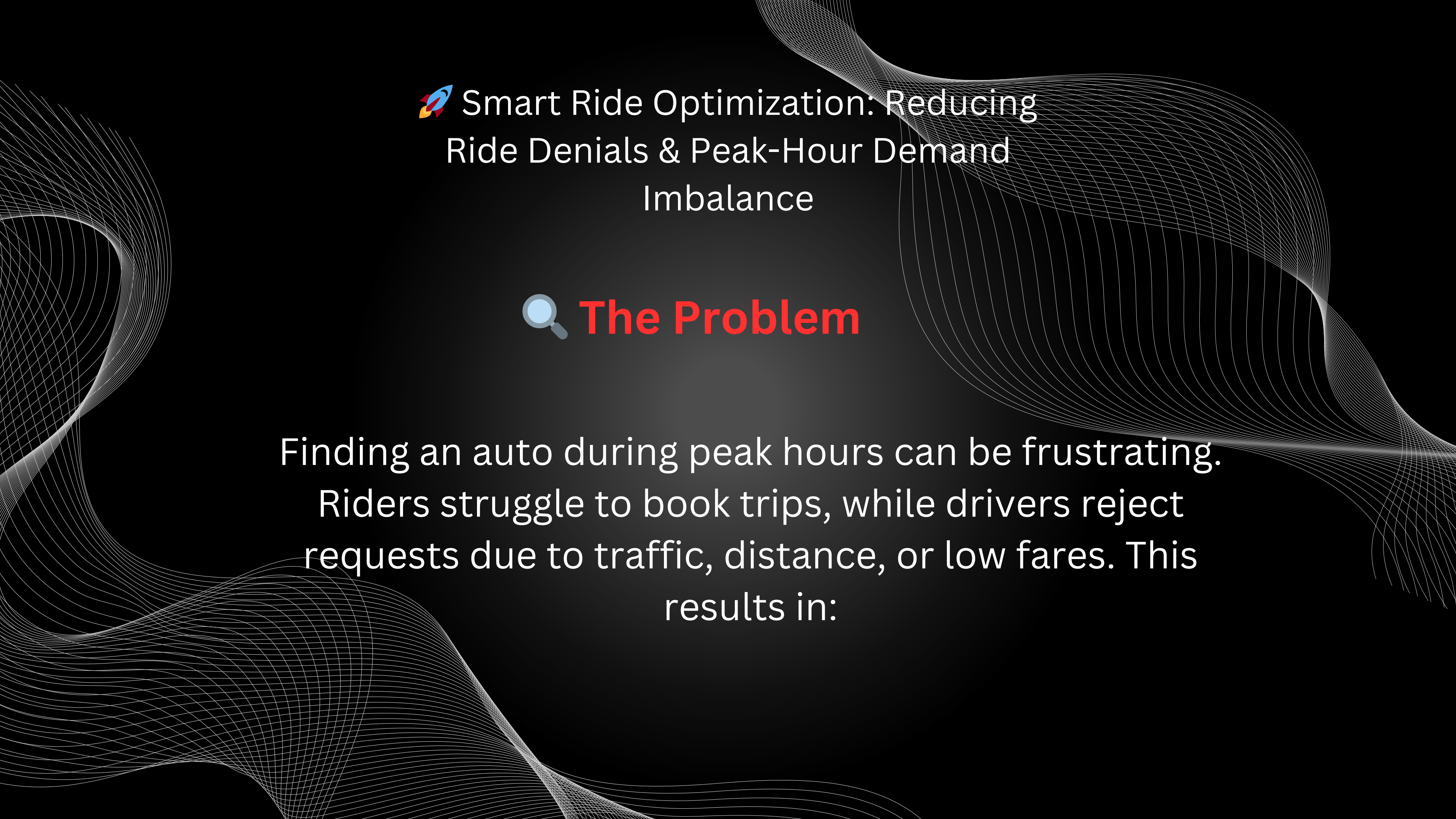




TEAM CODING MACHAS

Ranjith N
shreeharsha
Mujawar Zaid Siraj





Smart Ride Optimization: Reducing Ride Denials & Peak-Hour Demand Imbalance

The Problem

Finding an auto during peak hours can be frustrating.
Riders struggle to book trips, while drivers reject
requests due to traffic, distance, or low fares. This
results in:

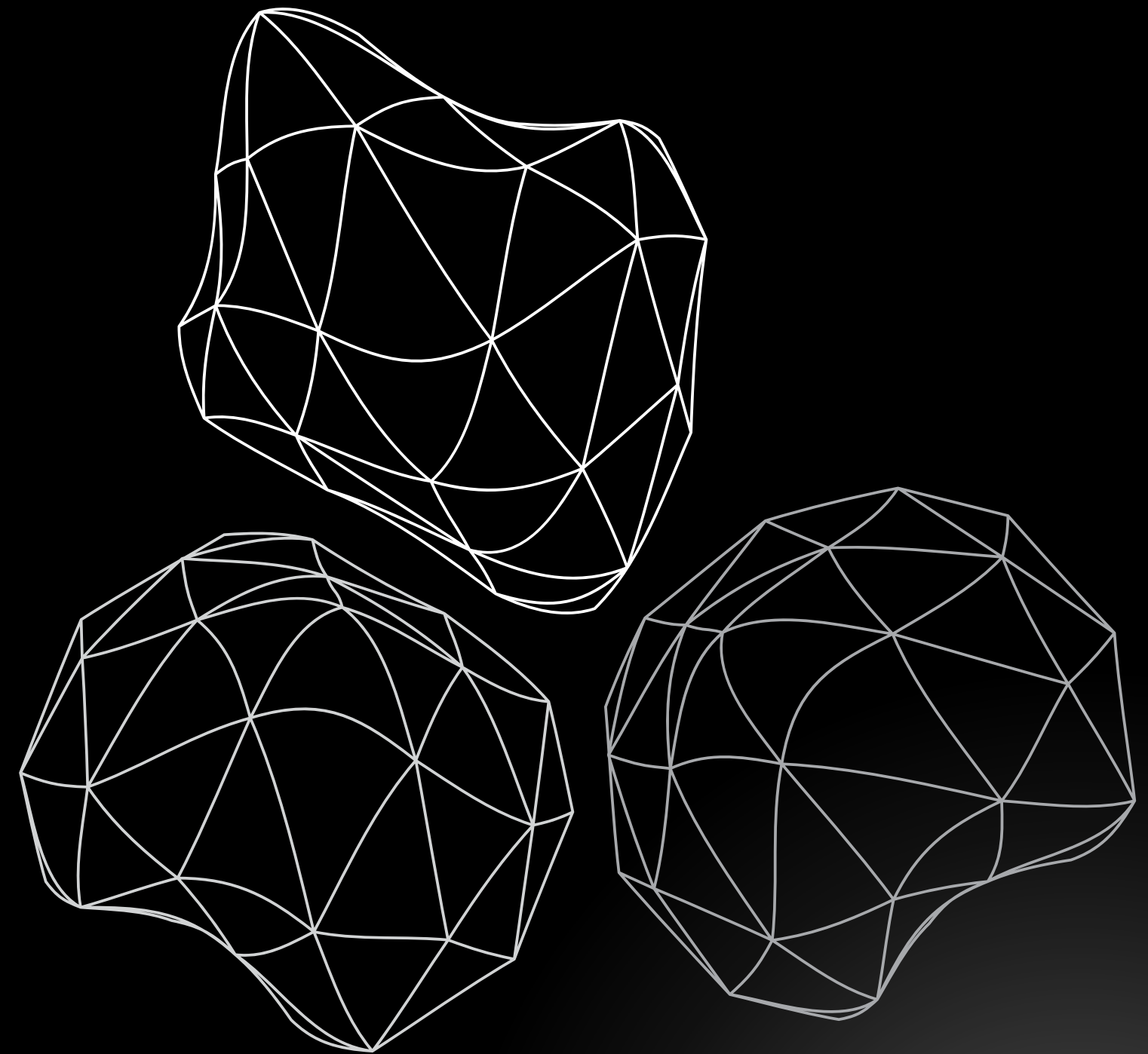
Problems

- ✗ Lost earnings for drivers
- ✗ Longer wait times for passengers
- ✗ Decreased trust in the platform

💡 The Solution:

AI-Powered Smart Ride Matching & Incentives

Our system predicts peak-hour demand, guides drivers to high-demand areas, and motivates them to accept rides using smart incentives and gamification—all while maintaining fair pricing for passengers.



KEY FEATURES

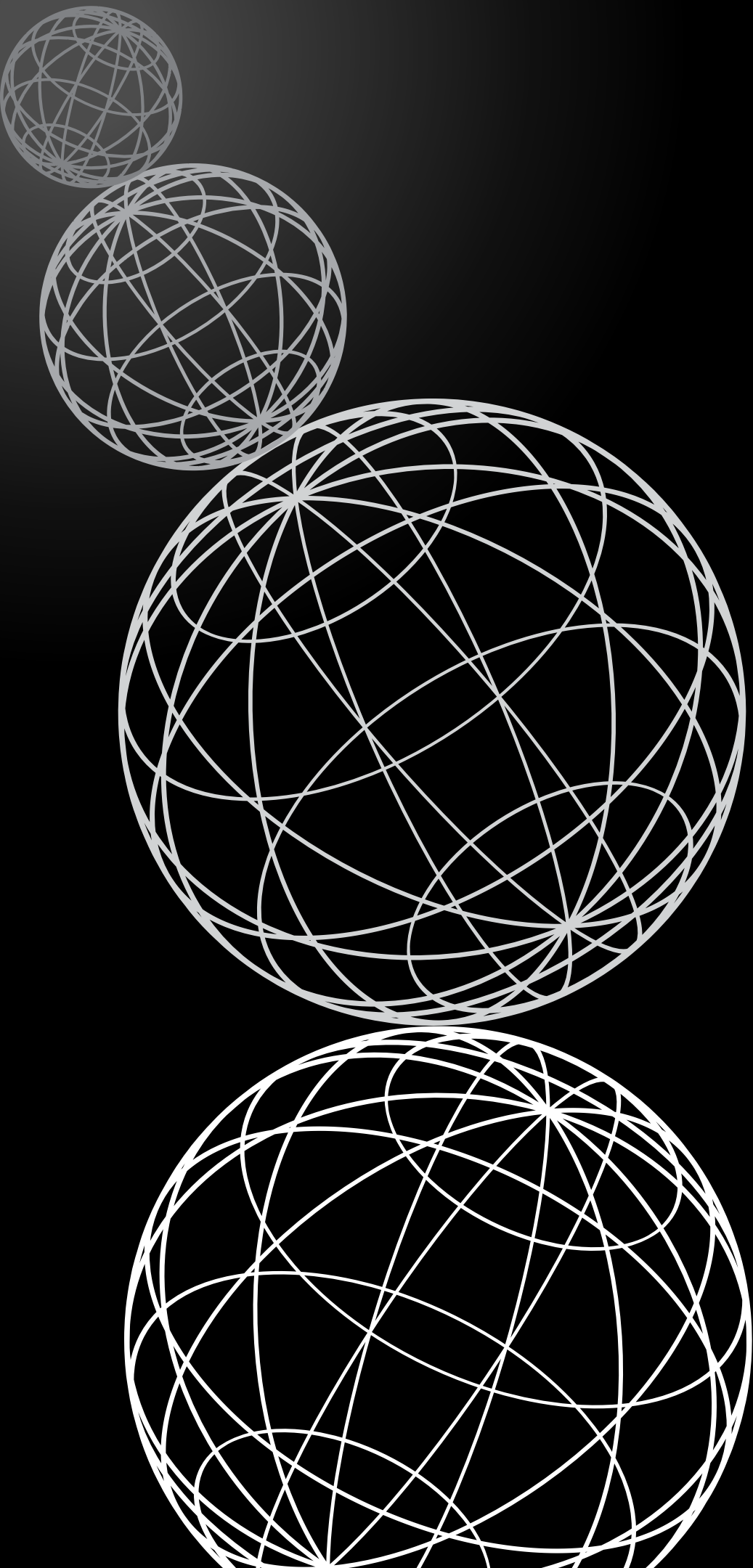
Predicts high-demand areas using real-time and historical ride data.

Result: More autos in high-demand areas = faster pickups, fewer denials.

Goes beyond simple “nearest driver” selection
Result: Higher ride completion rates and better experiences for both drivers & passengers.

AI adjusts fares dynamically to balance driver earnings & passenger affordability.

Result: Happier riders & more motivated drivers





Real-Time Ride Availability Tracking ⌚

Works with Namma Yatri's existing system via easy API integration.

Tech Stack

AI Model -- python

Backend --api fastapi/flask

Databade--postgresql/firebase

Frontend --React/next.js

Cloud deployment AWS/google cloud

Driver/passenger app--Websockets



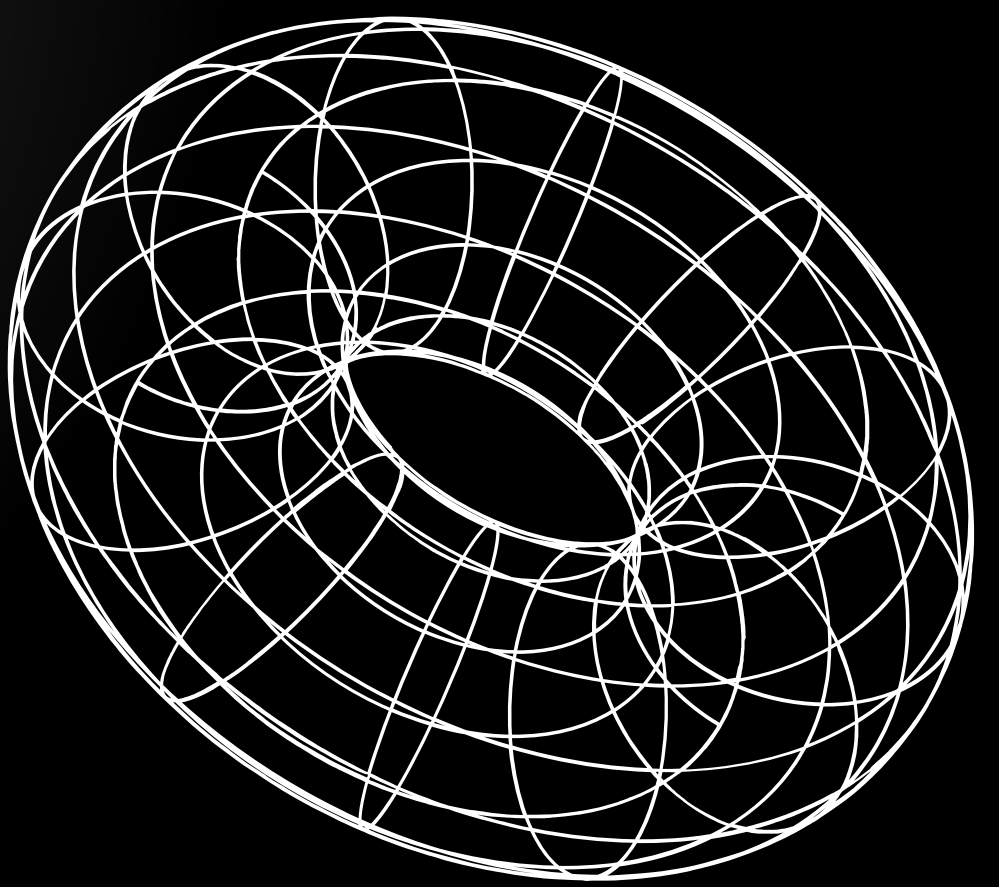
SOLUTION

Before Peak Hours: AI predicts demand spikes → guides drivers to busy areas.

Smart allocation ensures faster matches with less rejection.

Passengers see real-time updates on wait times.

result--Lower denials, more completed rides, and happier users.





🏆 Why Should Our Solution Be Selected?

- ✓ Fixes the Real Problem, Not Just the Symptoms

Predicts demand in advance so drivers are already in the right place.

- ✓ Better for Both Riders & Drivers

Riders get autos faster and face fewer cancellations.

Drivers earn more without feeling exploited.

- ✓ Uses AI to Optimize Urban Mobility

Works seamlessly with Namma Yatri via API integration.

- ✓ Can expand to other ride-sharing platforms easily.

THANK YOU