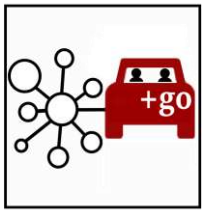
+GO: INTELLIGENT COMPLEMENTARY RIDE-SHARING SYSTEM

Research Area : E-Society

Team Name : CodeFlexers



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Research Question

How can we find an effective solution to reduce traffic congestion during office hours in urban areas?

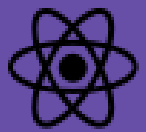
Our research will find solutions,

- To reduce the traffic congestion in urban area
- To reduce the car ownership cost (cost of fuel) for the journey by dividing it among other passengers
- To reduce environmental pollution.
- To build network between professionals.

Link to our initial survey

Technology Stack

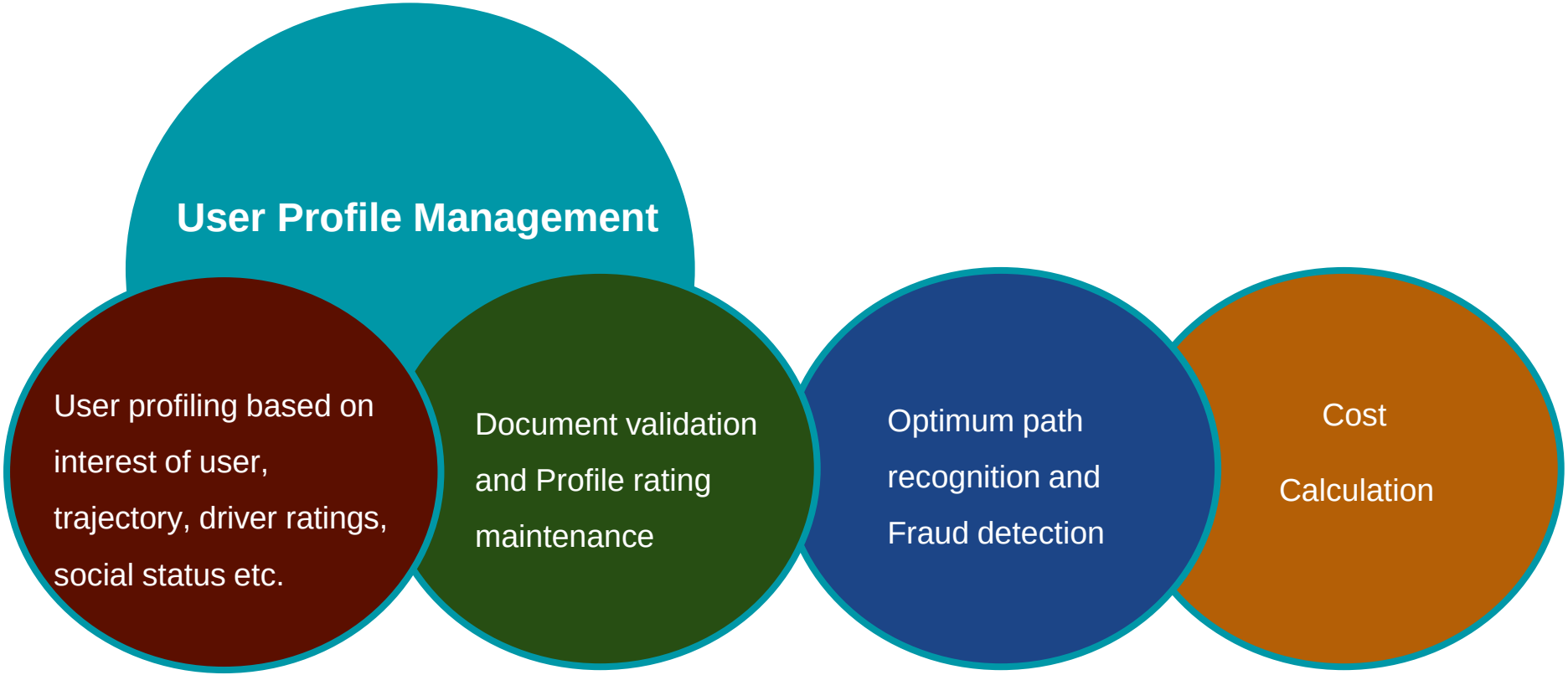
Front End: React Native



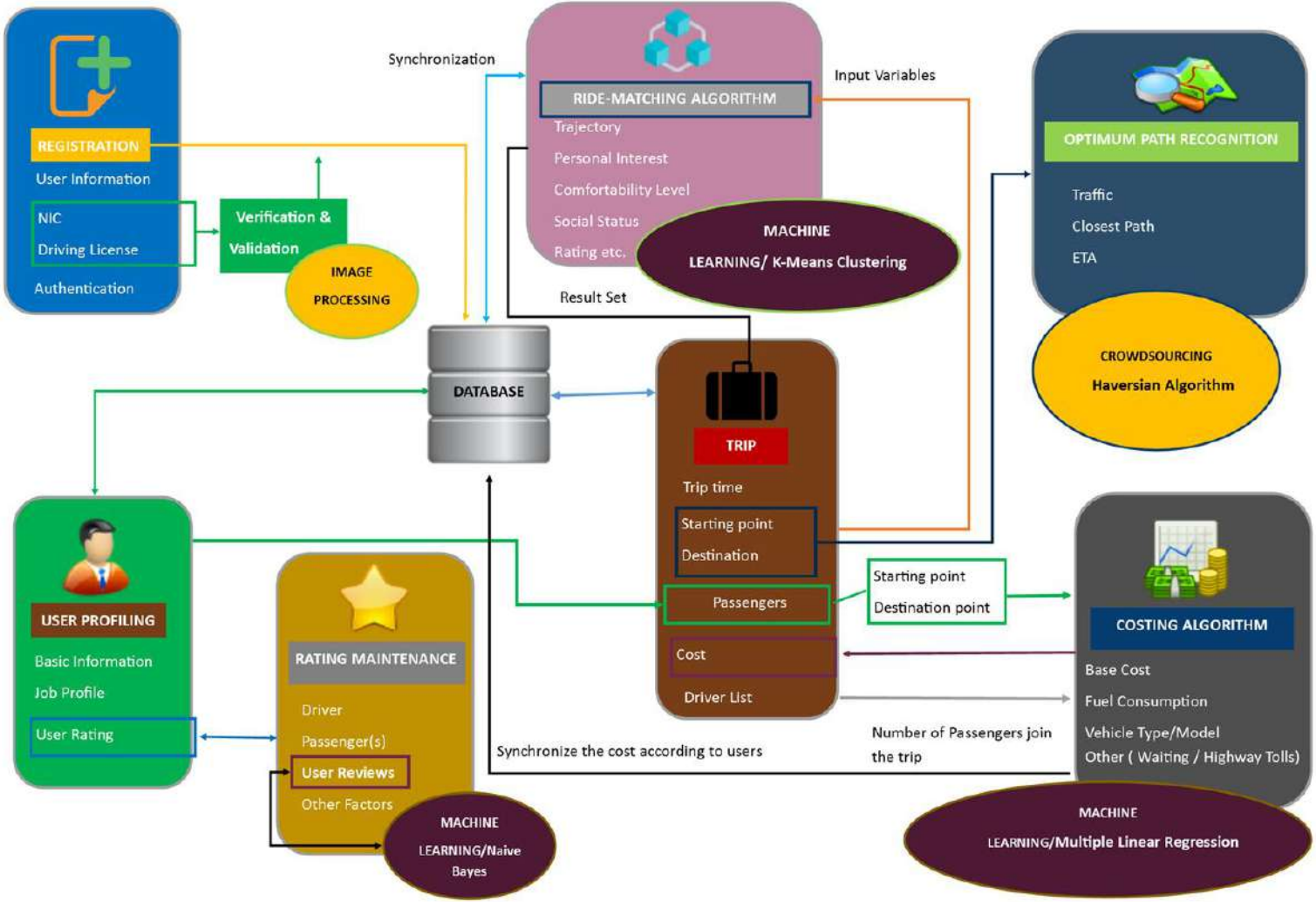
Cloud Service

Back End: Python

Research Components



High Level System Diagram


REGISTRATION
User Information
NIC
Driving License
Authentication
Verification & Validation
IMAGE PROCESSING
Synchronization
RIDE-MATCHING ALGORITHM
Trajectory
Personal Interest
Comfortability Level
Social Status
Rating etc.
MACHINE LEARNING/ K-Means Clustering
Input Variables
Result Set
OPTIMUM PATH RECOGNITION
Traffic
Closest Path
ETA
CROWDSOURCING
Haversian Algorithm
DATABASE
TRIP
Trip time
Starting point
Destination
Passengers
Cost
Driver List
Starting point
Destination point
USER PROFILING
Basic Information
Job Profile
User Rating
RATING MAINTENANCE
Driver
Passenger(s)
User Reviews
Other Factors
MACHINE LEARNING/Naive Bayes
Synchronize the cost according to users
Number of Passengers join the trip
COSTING ALGORITHM
Base Cost
Fuel Consumption
Vehicle Type/Model
Other (Waiting / Highway Tolls)
MACHINE LEARNING/Multiple Linear Regression

References

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