SAF SAF-AI

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Let's make the world a cleaner place

PROBLEM

"Garbage"

What? Is this really a problem?

I mean we all have heard it so many times that it doesn't even look like a problem.
But **over 16% of garbage** still isn't collected every day from the huge amount generated.

The Problem of Untreated Waste
Imagine 3 million trucks piled high with garbage. That's how much untreated garbage Urban India generates every day. Just in case if you are wondering how much waste that is – If these 3 million trucks are laid end to end, **they would cover half the distance between the earth and the moon**. That's also the distance you would cover if you made **15 trips between Mumbai and Los Angeles.**

AROUND 60% OF INDIA'S PLASTIC WASTE IS RECYCLED
Total Plastic Waste Generated Every Day
15,342 tonnes

So all these years have passed, lots and lots of technology advancement happened but still we can't even locate garbage in our locality.

Our Solution

A platform which will allow people to locate garbage around them and send the details to our server where we will process data and use **ML DBSCAN** cluster algorithm to cluster the heat location and find the optimal path using **Travelling Sales Person Algorithm (TSP)**. At the end of the day we'll have a set of coordinates and to send garbage trucks to pick up garbage and a real time heatmap to make people realize the amount of garbage around their locality. Not to forget the directly proportional relation between user base and accuracy of location.
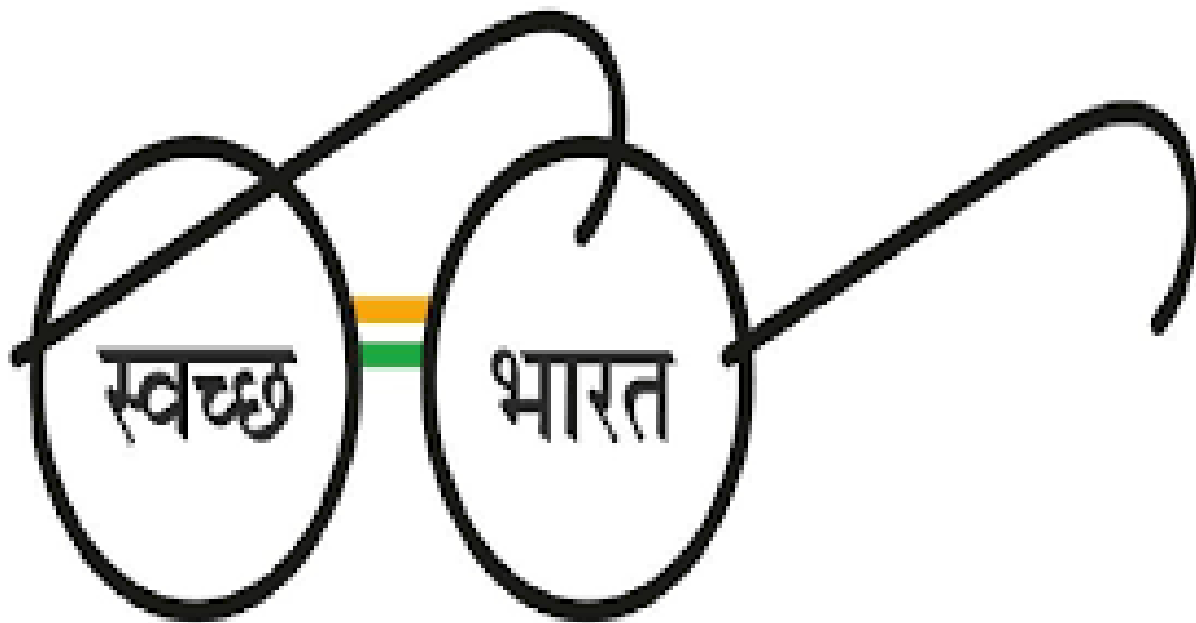
Our future plans

1. Using more than one Truck to decompose graph into components of shortest path.

2. Image recognition for severity detection

3. Collaborating with NGOs & recycling plants.

4. Show heat maps to user.

5. Rewards to reporters

How do we plan to make money

1. Sell the garbage to recycling plants - We can direct garbage truck to go to recycling plants and sell the garbage directly.

2. We can collaborate with the current existing app run by government to update their app and make it more efficient.

3. We can give data to other NGO and collaborate with them to clean the city.

Open your device, Report, and get the garbage picked from your locality.

स्वच्छ भारत
एक कदम स्वच्छता की ओर

SUBMITTED BY – TEAM A.R.T