
RH

REVA HACK</> 2021

Elevator Pitch

WEBTECH

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WASTECHECK

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Overview (What problem are you trying to solve)

Disposing of waste has huge environmental impacts and can cause serious problems. Needless to say, the most important reason for proper waste management is to protect the environment and for the health and safety of the population. It is a very important topic that needs to be addressed, and everyone should be aware why waste segregation can be the difference between the survival of the earth and the worsening effects in the natural biological system.

Often people dispose of waste without the knowledge of proper waste management. There is a need for an analysis on the current waste management scenario and the effects of ineffective waste management.

Goals (How are you solving the problem stated)

1. **Waste Classifier: A classifier that classifies the types of waste into three classes : Plastic, Paper and Recyclable based on deep learning**
2. **SaleZone : An ecommerce platform for users to sell and buy products conveniently and easily based on Ethereum network of payments**

Working Methodology (Summary on how your project is going to work/solve the problem stated)

Front End consists of HTML, CSS and Bootstrap. The backend is based on Flask as it's better for doing ML models and blockchain parts.

The waste classifier is based on Convolutional Neural Network architecture and also takes help from Pre Trained model EfficientNetB0 giving us an training accuracy of 93% and validation accuracy of 82% which then shows us the pages of each class.

SaleZone is an ecommerce platform where people can add their products with the cost of the product and their ethereum account. Then, other users can see the products and can buy from them directly. Some functionality still needs to be implemented as the time frame was low and with time, it can be made a viable product

Specifications (Tech Stack Used - Hardware + Programming Languages)

Frontend : HTML, CSS, Bootstrap

Backend : Flask

ML : Tensorflow, Numpy, OpenCV

Blockchain : web3.py, Metamask

Links and other Information:

- **Youtube Link : https://youtu.be/GwAll8rKcoE**
- **Github Repo : https://github.com/prachuryanath/webtech-hackreva**