CLEAN CITY

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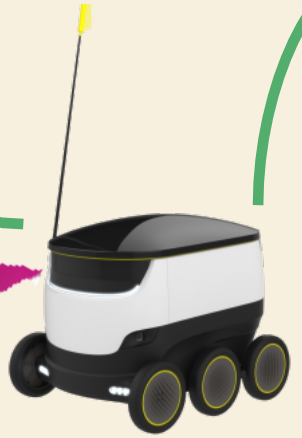
ARCHITECTURE

OVERVIEW

ARCHITECTURE OVERVIEW



WORKFLOW

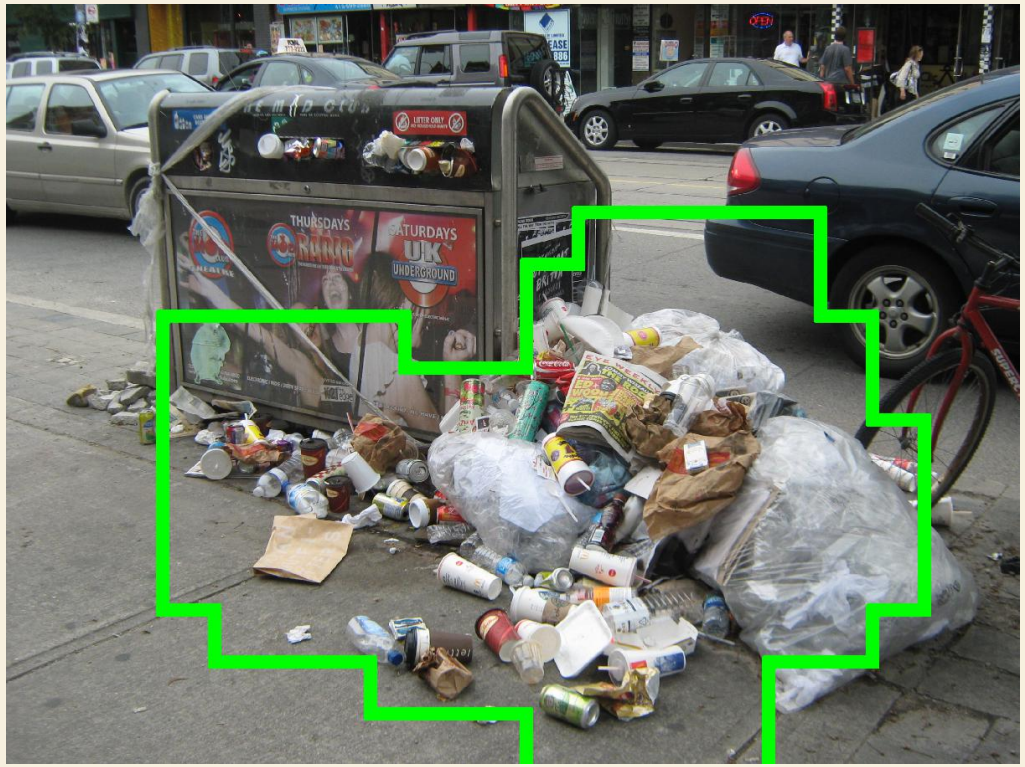
OVERVIEW

WORKFLOW OVERVIEW

- Self-driving robot will be left on the streets of the city and real-time updates regarding garbage detection will be collected using AI and deep learning.

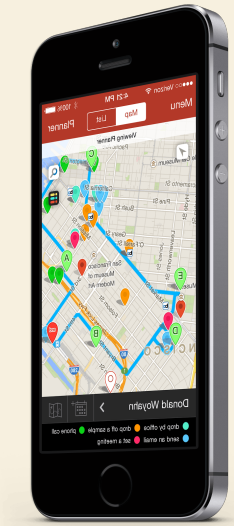
WORKFLOW OVERVIEW (CONT..)

- Deep Learning will be used to segment the garbage from collected images by the robot. Trained model will be used to compare images to GINI (Garbage IN Images) dataset for garbage detection.



WORKFLOW OVERVIEW (CONT..)

- Optimized route will be prepared by the Robot and sent to the cleaning trucks in the city so that maximum garbage can be collected in one go.



PHASE

DISCTRIBUTION

PHASE DISTRIBUTION

- The entire solution is divided into **four** phases:
  - Enhance current Garbage detection system.
  - Prepare the robot for detecting garbage.
  - Train the robot for generating optimized path.
  - Create an application for Cleaning trucks to get the real-time updates.

TECHNOLOGY

STACK

TECHNOLOGY STACK

Artificial Intelligence

iOS

Caffe

android

neuralnetworks

REFERENCE

REFERENCE

- http://caffe.berkeleyvision.org/
- https://en.wikipedia.org/wiki/Artificial_intelligence
- Mittal, Gaurav, et al. "SpotGarbage: smartphone app to detect garbage using deep learning." *Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing*. ACM, 2016.

THANK YOU

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