

Cheese Hunters aka Image Recognition Project 1: Identifying land uses



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Level 5



How?

- Filter all supermarkets (maps.amsterdam.nl)
- Select closest pictures
- Keep middle tiles
- Classify supermarket: Yes or No?
- Model: Convolutional Neural network



maps.amsterdam.nl

Panorama

Panorama

OPTIONS

GET

De panoramas van de stad worden in een lijst getoond

- panorama's
- thumbnails
- recente panorama's

GET /panorama/

HTTP 200 OK

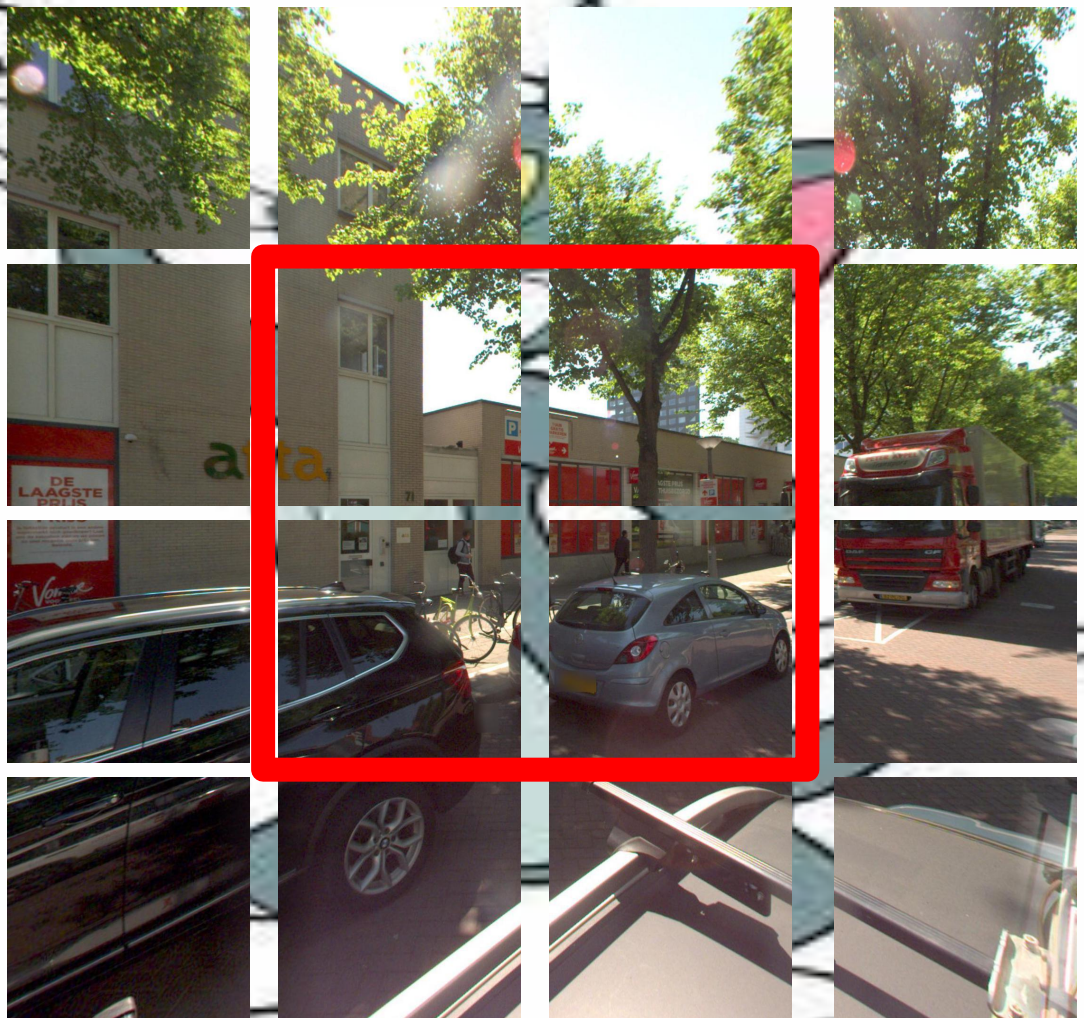
Allow: GET, HEAD, OPTIONS

Content-Type: application/json

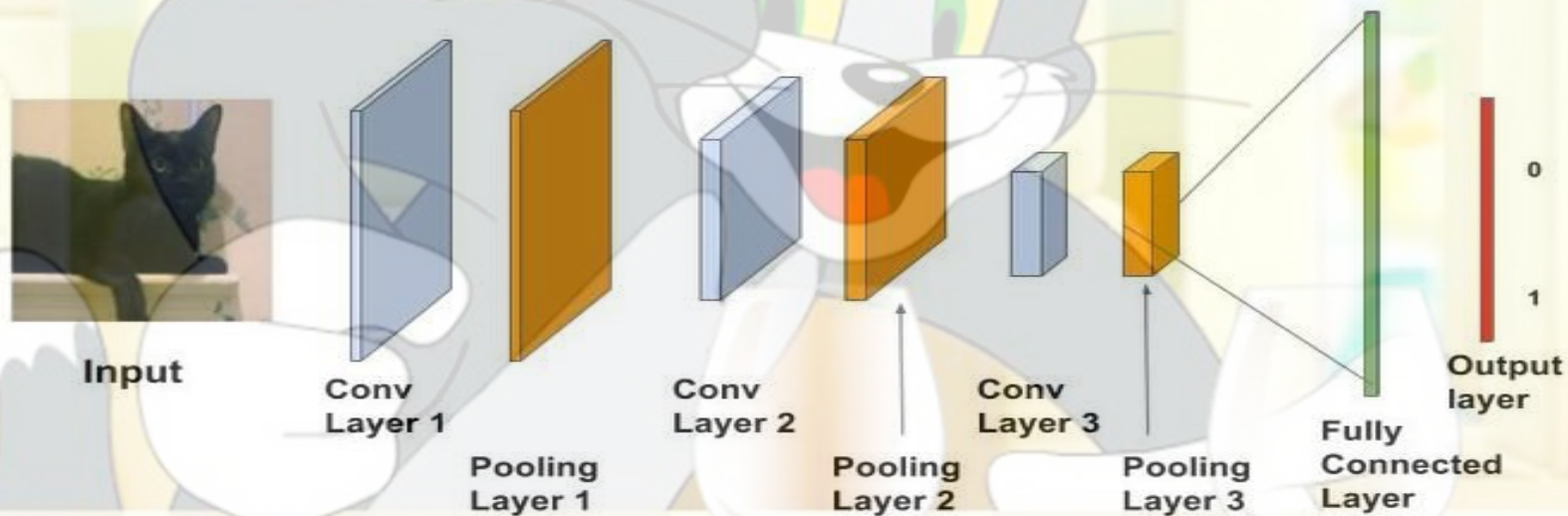
Vary: Accept

```
{
  "opnamelocatie": "https://api.data.amsterdam.nl/panorama/opnamelocatie/",
  "thumbnail": "https://api.data.amsterdam.nl/panorama/thumbnail/",
  "recente_opnames/alle": "https://api.data.amsterdam.nl/panorama/recente_opnames/alle/",
  "recente_opnames/2016": "https://api.data.amsterdam.nl/panorama/recente_opnames/2016/",
  "recente_opnames/2017": "https://api.data.amsterdam.nl/panorama/recente_opnames/2017/",
  "recente_opnames/2018": "https://api.data.amsterdam.nl/panorama/recente_opnames/2018/",
  "recente_opnames/2019": "https://api.data.amsterdam.nl/panorama/recente_opnames/2019/",
  "recente_opnames/2020": "https://api.data.amsterdam.nl/panorama/recente_opnames/2020/"
}
```


Keep middle 4 tiles!



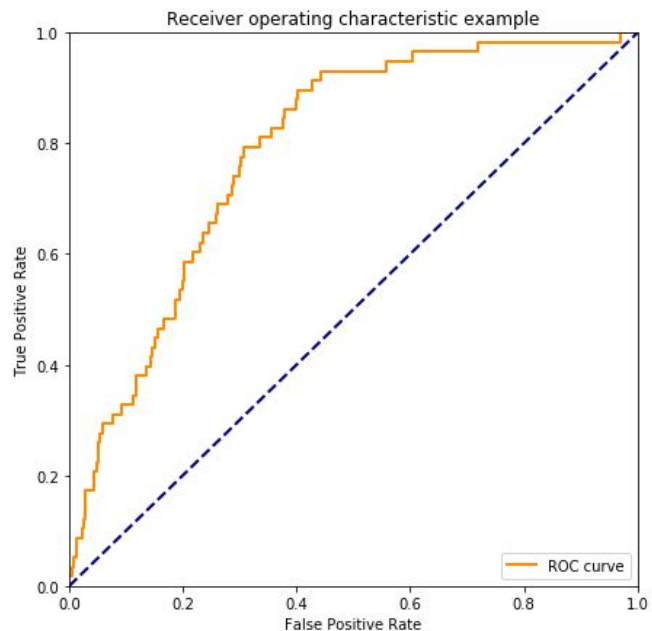
Classifier



Feature Extractor

Classifier

Results



		Humans says	
		market	not market
Machine says	market	51 (6,4%)	292 (37,1%)
	not market	7 (0,9%)	438 (55,6%)

Examples (the good and the bad)



Correctly recognized
as supermarket

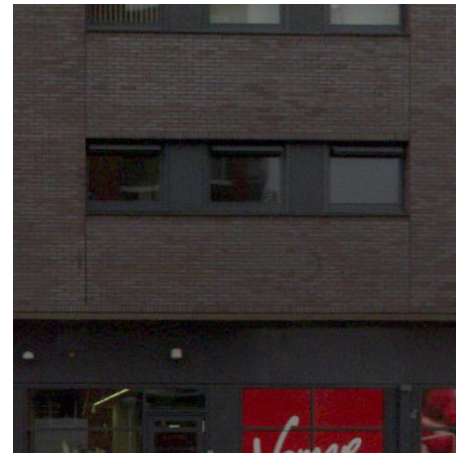


Correctly recognized
as not a supermarket

Incorrectly recognized
as a supermarket



Unrecognized as a
supermarket



Cheese for thoughts

1. More data points!!!
2. Combining tiles
3. Verify from more sources

Thank you!

