TDI Project

Real Estate property image analysis

Redfin Alert

Amazing home. Will sell faster than 99% of similar homes.

4 beds 2 baths in amazing neighbourhood

No repairs, not a fixer-upper

Call to schedule a viewing

http://cronkitenews.asu.edu

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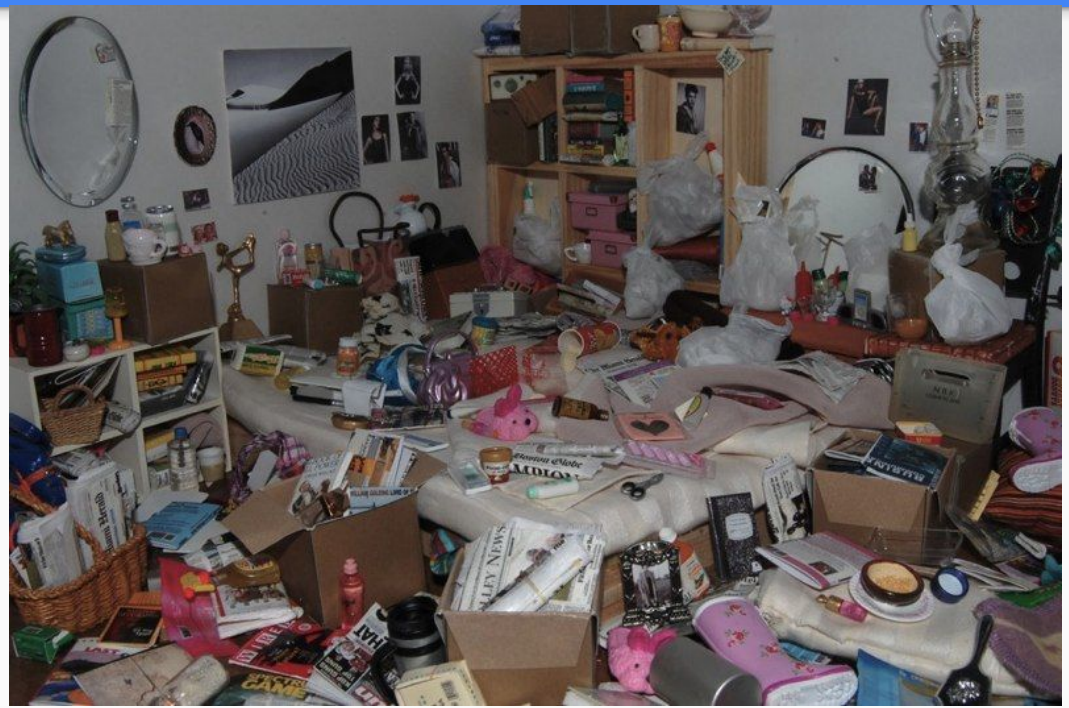
So I looked

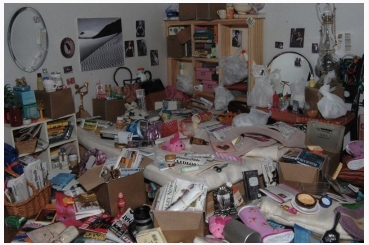
http://cronkitenews.asu.edu



boingboing.net

Redfin and MLS cannot analyse the pictures

The idea is to take the pictures of pretty houses and ugly houses, and tag them



UGLY

PRETTY

Conv2D

Then run these through a Conv2D to see if it can learn to identify ugly houses

Layer (type)	Output Shape	Param #
conv2d_12 (Conv2D)	(None, 26, 26, 32)	320
max_pooling2d_8 (MaxPooling2	(None, 13, 13, 32)	0
conv2d_13 (Conv2D)	(None, 11, 11, 64)	18496
max_pooling2d_9 (MaxPooling2	(None, 5, 5, 64)	0
conv2d_14 (Conv2D)	(None, 3, 3, 64)	36928
flatten_4 (Flatten)	(None, 576)	0
dense_8 (Dense)	(None, 64)	36928
dense_9 (Dense)	(None, 10)	650

Steps

1. Massive data collection (Code complete) and data tagging required
   re-image.herokuapp.com
2. Auto crop and resize images (Code complete)
3. Create Convnet (Code partially complete)
4. Train model

Challenges

1. Sample bias (not many ugly houses on the market)
2. Processing power (lone computer might not be sufficient)