Picturio’s Aesthetic scoring – Real Estate Images POC

AES\_v1 scoring – old, decision forest based method

AES\_V2 scoring – new, deep learnng based method

Photos were scored based on the above two methods

Image Test Set: 90 images, split to 3 **subjective** catgegories:

* bad – 30 images
* mid – 30 images
* nice – 30 images

## Analysis

### Scores’ means by category

AES\_V2 AES\_v1

Class name

bad 0.383354 0.302377

mid 0.400361 0.374330

nice 0.486072 0.507594

### Scores std by category

AES\_V2 AES\_v1

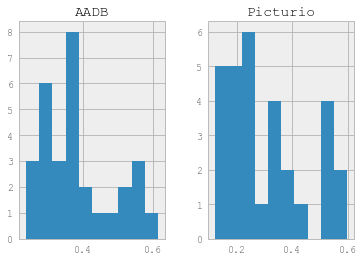
Class name

bad 0.105481 0.143134

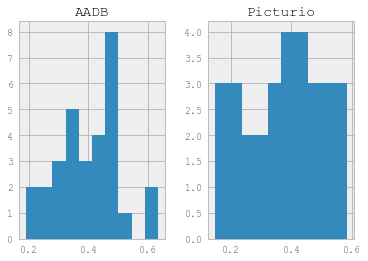
mid 0.104895 0.122787

nice 0.059341 0.090463

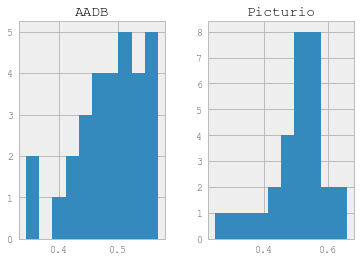
Distribution of scores for BAD category



Distribution of scores for MID category



Distribution of scores for NICE category



## Separation

### Using a top-bottom separation threshold of 0.4:

AES\_V2 Top(score>0.4)

Class name

bad 9

mid 16

nice 28

AES\_V2 Bottom(score<=0.4)

Class name

bad 21

mid 14

nice 2

AES\_v1 Top(score>0.4)

Class name

bad 7

mid 13

nice 27

AES\_v1 Bottom(score<=0.4)

Class name

bad 23

mid 17

nice 3

## Conclusion

Pictuio’s general automatic aesthetic scoring methods have reasonable separation power in the real estate image set. There are three main issues with this study:

* the image labels (bad, mid, nice) are subjective
* only small image set (90 images)
* Picturio’s general aesthetic models are used

The general models are not specific for real estate photo quality needs, so in order to have better separation power further training is desirable – which is a costly process.

Especially color harmony is a factor which has a very different aesthetic meaning in general phoots, and real estate specific ones.

The presented separation power can be suitable for evaluating the real estate photos and help in a selection process. Relative scores for a sequence of similar photos can be a good base of sorting.

The POC shows, that Picturio’s technology can be used for these kind of tasks.