The Data Incubator
Capstone Project Proposal

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Research Code Competition

PetFinder.my

PetFinder.my - Pawpularity Contest

Predict the popularity of shelter pet photos

$25,000

Prize Money

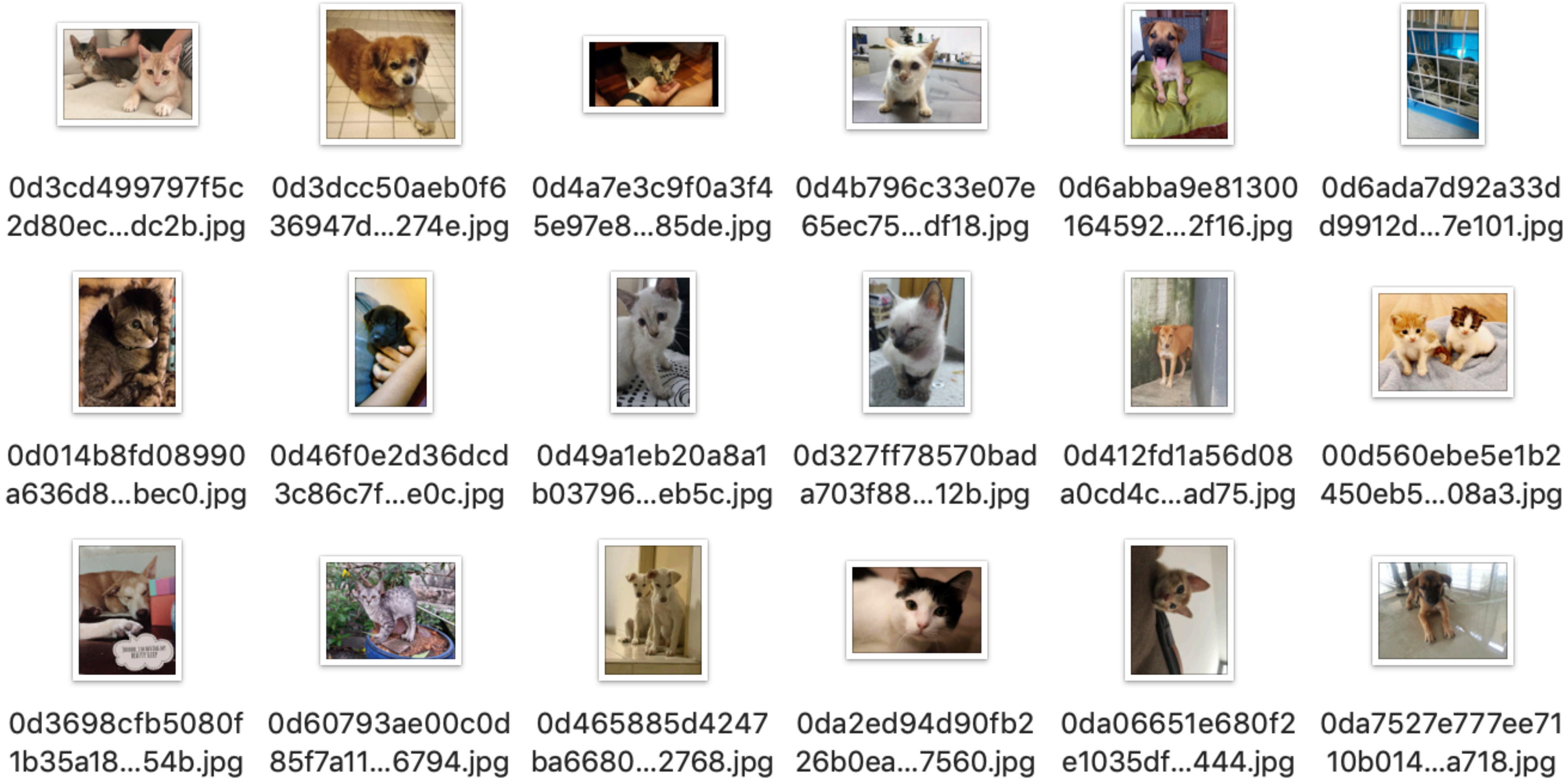
PetFinder.my · 2,046 teams · 2 months to go (2 months to go until merger deadline)

PetFinder.my - Pawpularity Contest

- A $25,000 prize ongoing competition on Kaggle
- Predict the popularity of shelter pet photos

Dataset Information

- 9912 image data, 1.06GB in size



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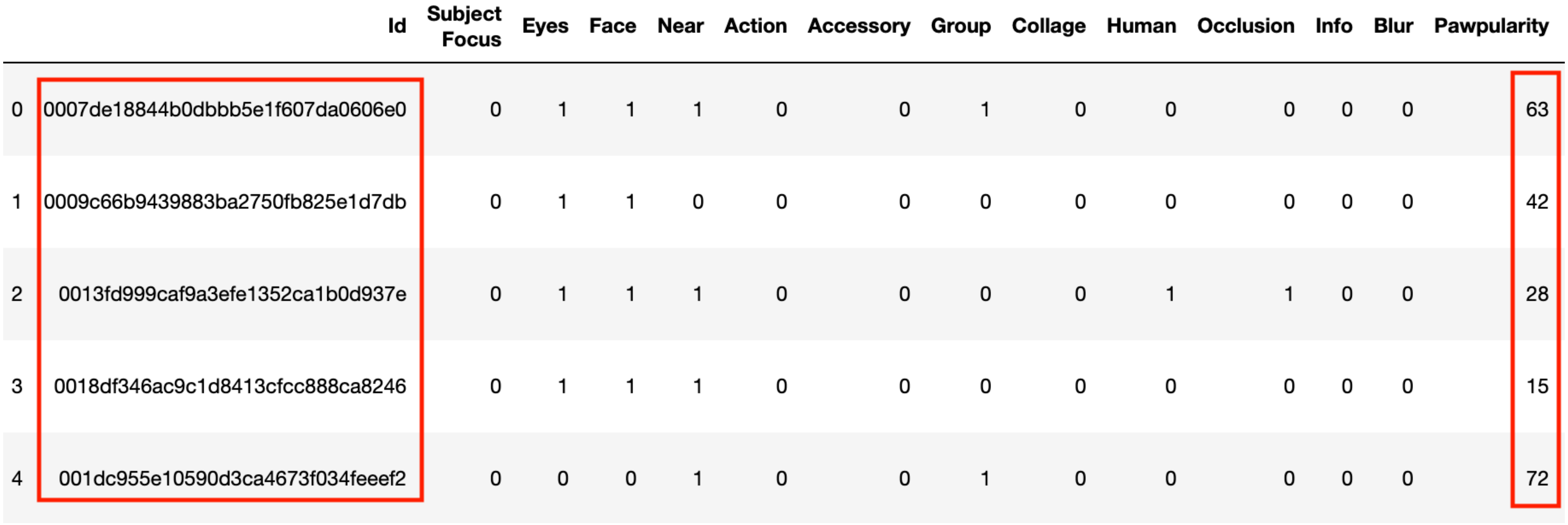
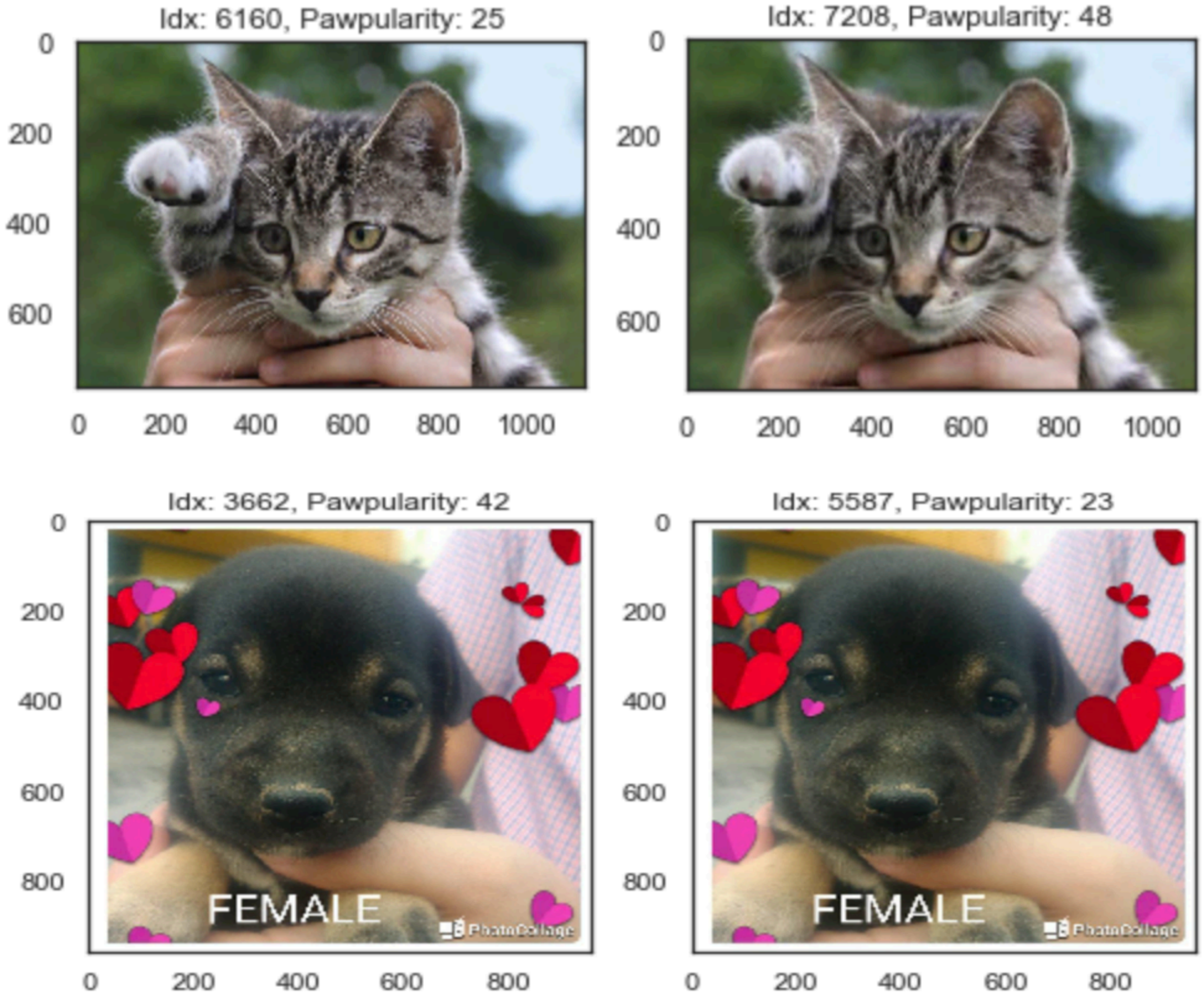
Dataset Information

- Metadata (train.csv)



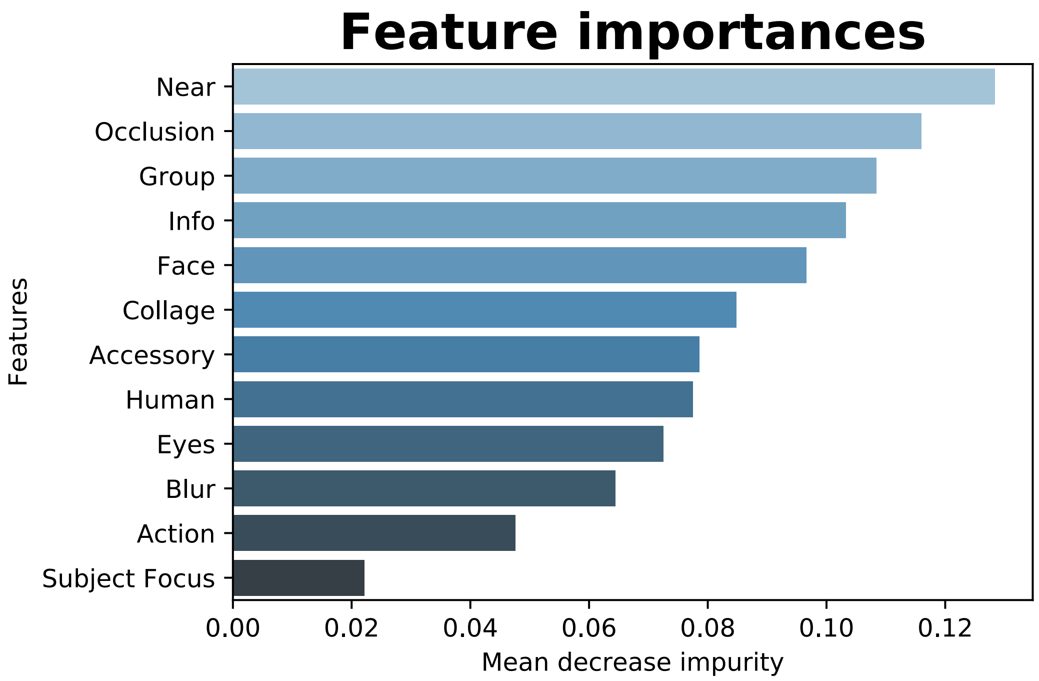
	Id	Subject Focus	Eyes	Face	Near	Action	Accessory	Group	Collage	Human	Occlusion	Info	Blur	Pawpularity
0	0007de18844b0dbbb5e1f607da0606e0	0	1	1	1	0	0	1	0	0	0	0	0	63
1	0009c66b9439883ba2750fb825e1d7db	0	1	1	0	0	0	0	0	0	0	0	0	42
2	0013fd999caf9a3efe1352ca1b0d937e	0	1	1	1	0	0	0	0	1	1	0	0	28
3	0018df346ac9c1d8413cfcc888ca8246	0	1	1	1	0	0	0	0	0	0	0	0	15
4	001dc955e10590d3ca4673f034feeef2	0	0	0	1	0	0	1	0	0	0	0	0	72

Data Preprocessing: removed 27 pairs of duplicate images



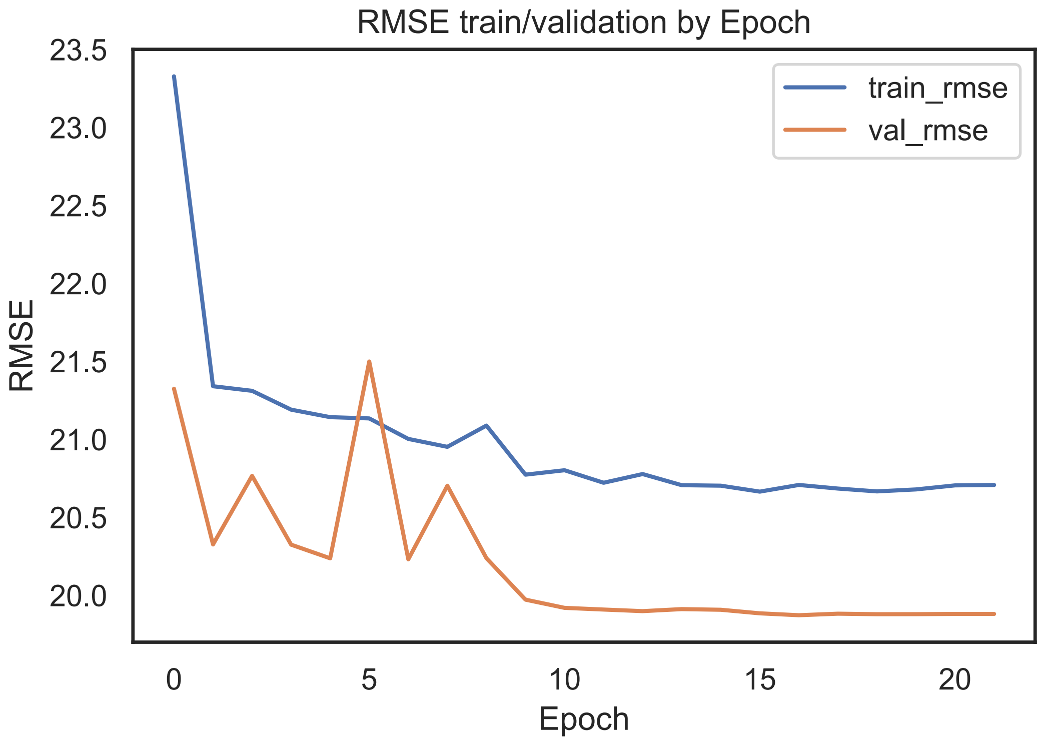
Preliminary result:
Random forest regression on metadata

- Tuned three parameters: *bootstrap, max_features, number of trees and max_depth.*
- The best values for these four parameters are: *True, log2, 400, 10*.
- Train RMSE: **20.4**.
- Validation RMSE: **20.74**.



Preliminary result: CNN on image data

- Basic CNN model
- Pretrained model(EfficientNetB0.h5)
- Train RMSE stabilized at **20.68**.
- Validation RMSE stabilized at **19.88**.



Thank you!