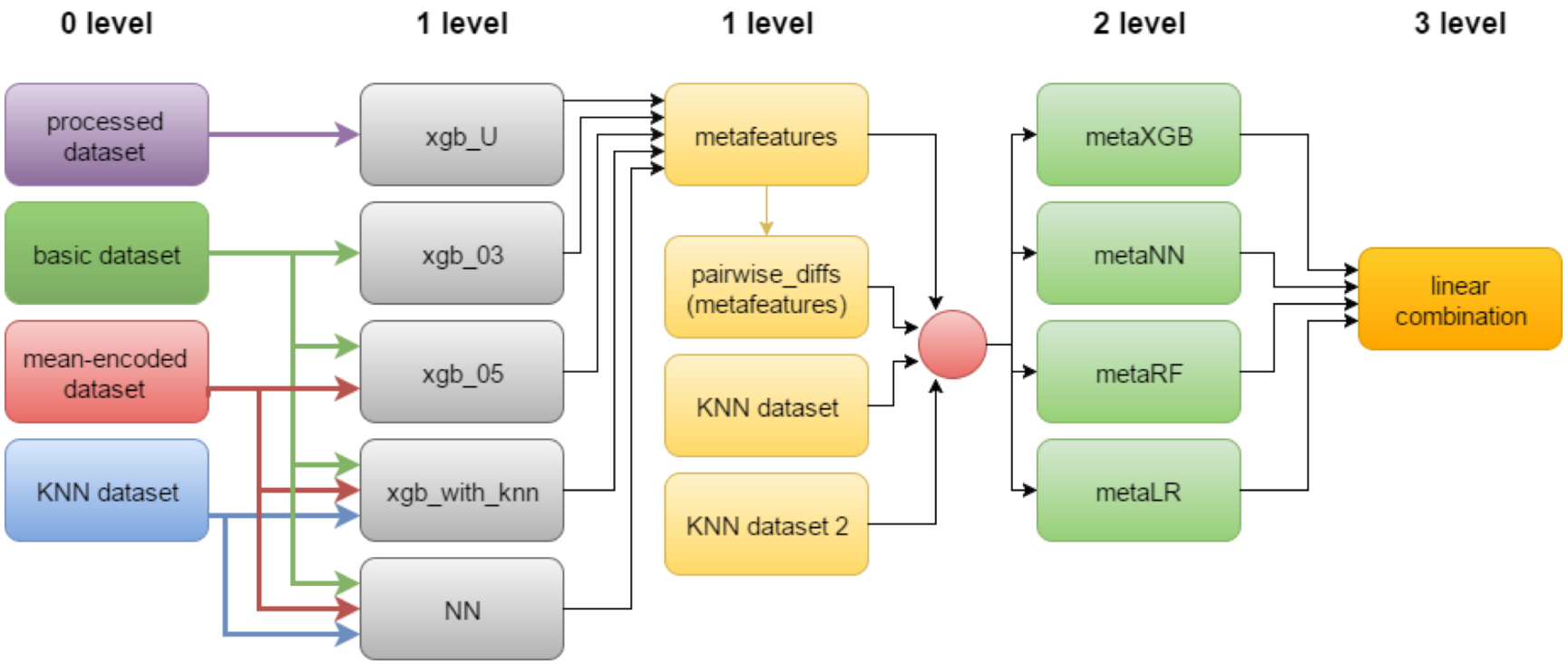
In the money Gold Silver Bronze

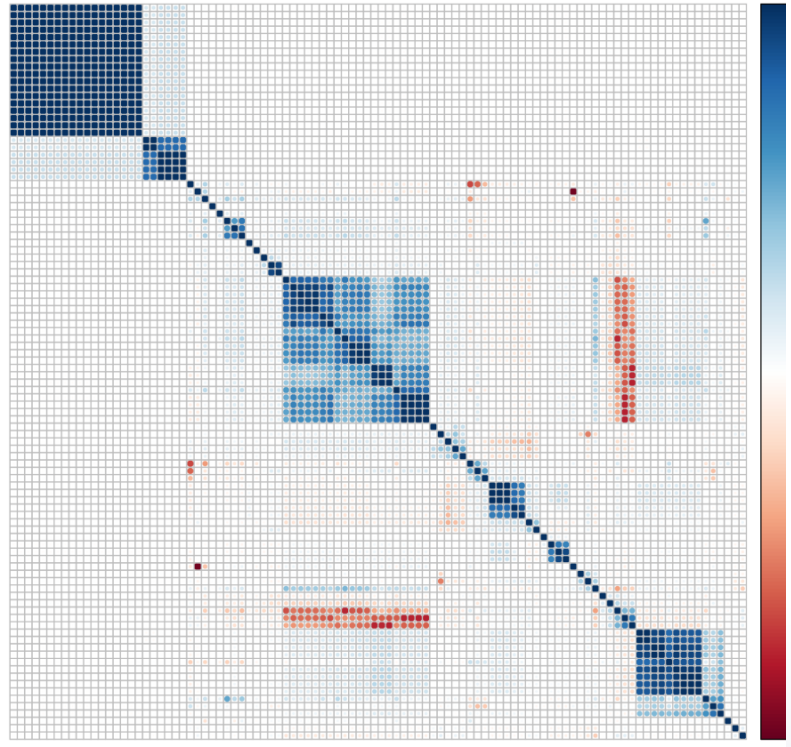
#	△pub	Team Name	Kernel	Team Members	Score	Entries	Last
1	—	Asian Ensemble		+3	0.80427	274	2y
2	▲ 1	.baGGaj.		+3	0.80394	166	2y
3	▲ 1	Merging the Mundane and th...			0.80390	44	2y
4	▼ 2	ARG eMMSamble		+3	0.80367	328	2y
5	—	n_m			0.80208	50	2y
6	▲ 1	KazAnova & clobber			0.80195	64	2y
7	▼ 1	Gzs_iceberg			0.80179	30	2y
8	—	DP&MJ&JL&SS			0.80158	202	2y

Stacking scheme

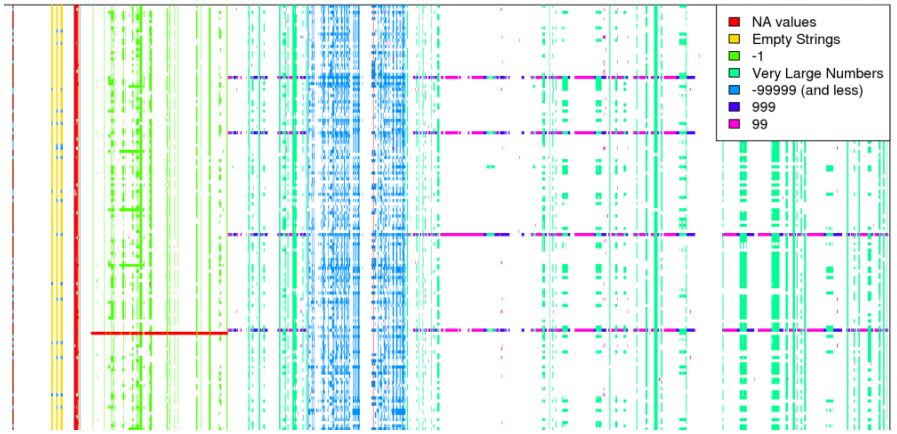


Determine whether to send a direct mail piece to a customer

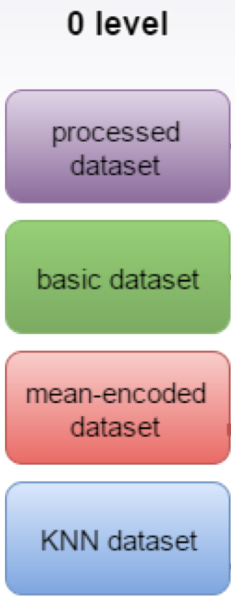
2 classes
AUC



145k objects in train
anonymized features
(~2k)



Feature packs



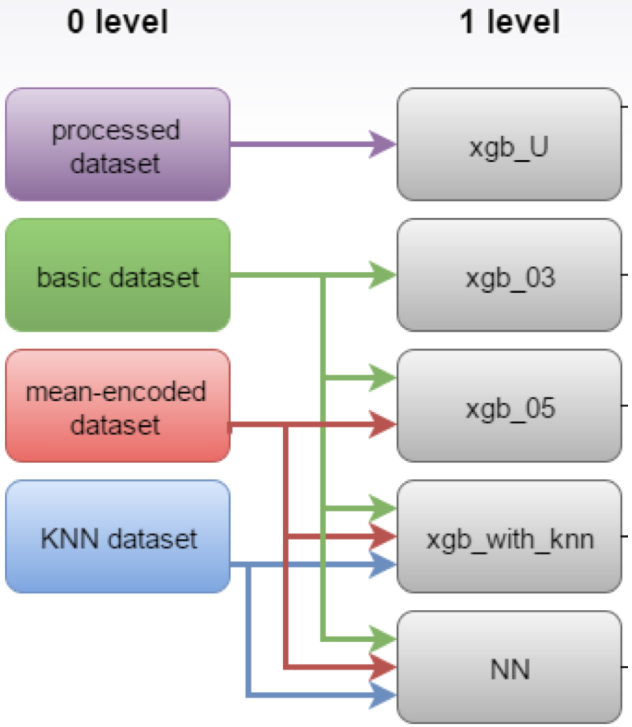
processed dataset - Advanced data cleaning and feature engineering

basic dataset - Basic data cleaning and feature engineering

mean-encoded dataset - Projecting features into homogeneous space

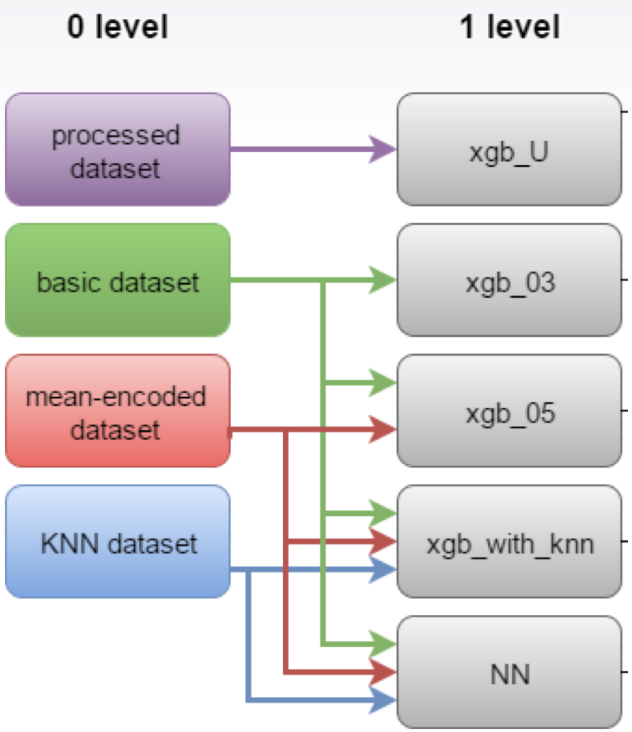
KNN dataset - distance features on mean-encoded

1 level: out-of-fold predictions - xgboost



- oof predictions (== metafeatures) should be diverse
- each metafeature should bring 'new' information about Y

1 level: out-of-fold predictions - NN



- StandartScaler:

$$x = \frac{x - mean(x)}{std(x - mean(x))}$$

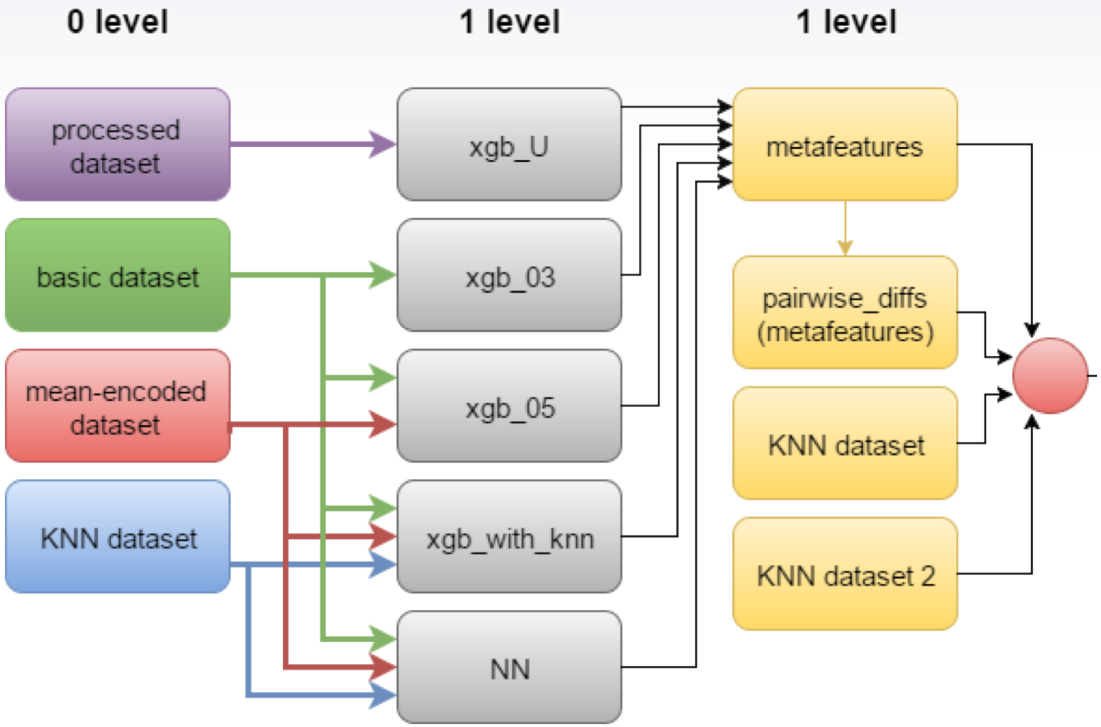
- Ranks:

$$rank([0.1, 4, -2]) = [2, 3, 1]$$

- Power:

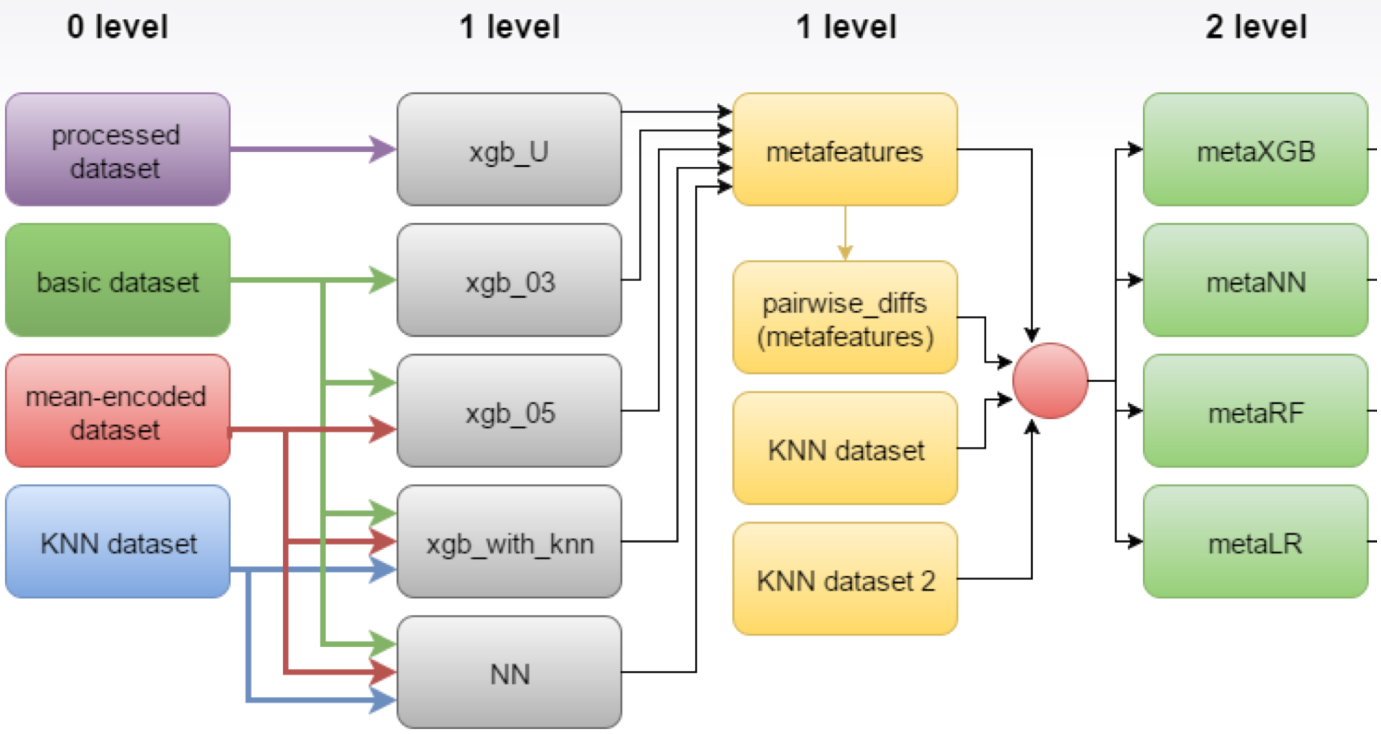
$$feature = sign(feature) * |feature| ** 0.5$$

1 level - features



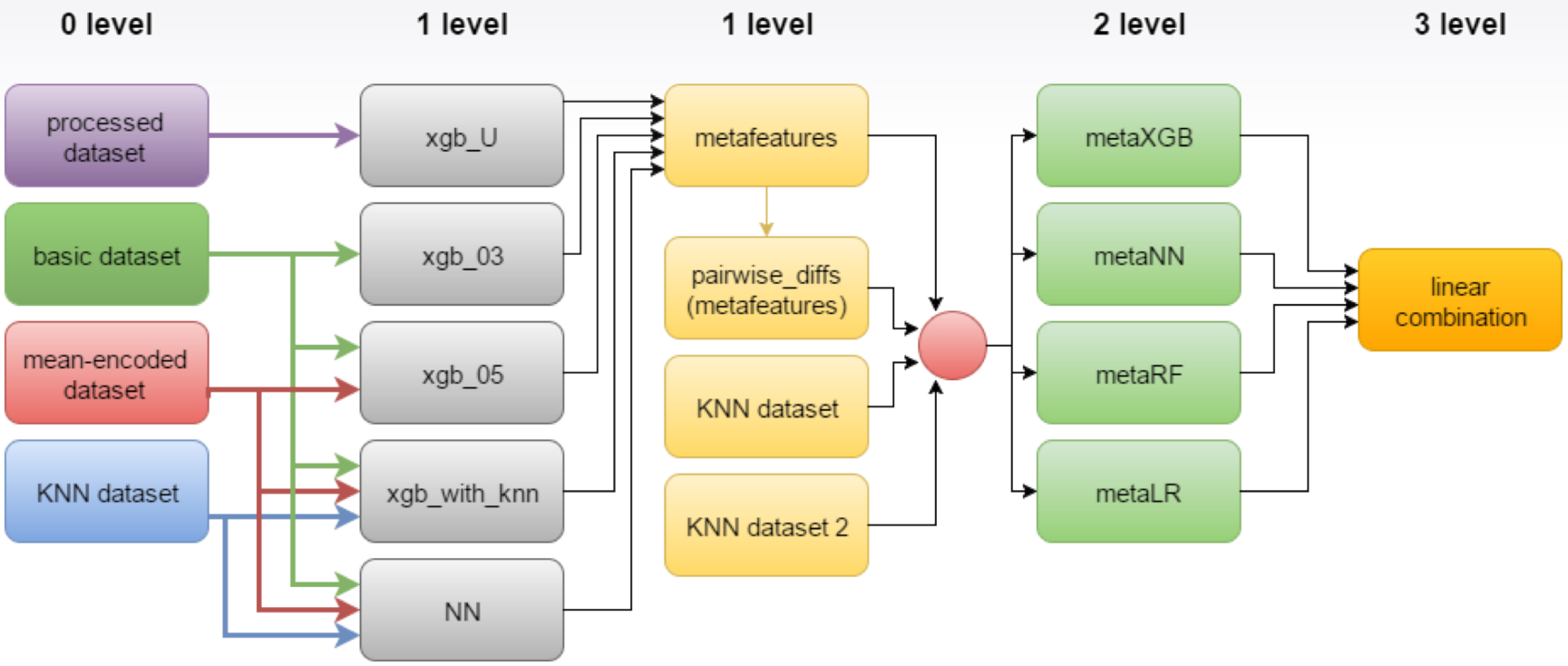
- KNN dataset - distance features on mean-encoded
- KNN dataset 2 - distance features on (mean-encoded ** 0.5)
- Additional features should bring new information to 1 level

2 level - classifiers



- classifiers should be simple
- predictions should be diverse

3 level - final



- coefficients are estimated directly

Scripts on kaggle:

- https://www.kaggle.com/steves/springleaf-marketing-response/visualizing-na-values/notebook
- https://www.kaggle.com/darraghdog/springleaf-marketing-response/explore-springleaf