

LR

Average RMSE 10 fold cross validation : 11.485522

Average RMSE Leave one out : 7.966900

RMSE Vet : 7.503460

Average Coef

	Coef
PCV	8.168483
MCH	3.687929
MCV	3.566426
HGB	3.312788
Weight	3.261651
MCHC	2.377993
RBC	2.339999
SEGS	2.226335
LYMPH	1.510802
WBC	1.360952
PCV\ndonor	1.212036
PLT\n_____	1.020179
PROTEIN (REFRACT)	1.001266
PLATELETS	0.779197
RDW	0.346656
MONO	0.272426
Volume	0.201935

Average RMSE 10 fold cross validation : 9.149929

Average RMSE Leave one out : 6.083817

RMSE Vet : 7.503460

Average Coef

	Coef
PCV	7.926993
Weight	3.199606
MCV	3.006236
HGB	2.886763
MCH	2.564269
RBC	2.114734
SEGS	1.901447
LYMPH	1.401795
MCHC	1.396335
WBC	1.296875
PCV\ndonor	1.192260
PROTEIN (REFRACT)	0.905835
PLT\n_____	0.329561
Volume	0.229827

Average RMSE 10 fold cross validation : 7.733842

Average RMSE Leave one out : 5.678154

RMSE Vet : 7.503460

Average Coef

	Coef
PCV	7.739972
MCH	5.252148
MCV	4.356633
SEGS	3.584049
MCHC	3.518407
HGB	3.037117
Weight	3.024763
LYMPH	2.735435
RBC	2.273305
WBC	1.392573
PCV\ndonor	1.263917
Volume	0.463040

In []:

Average RMSE 10 fold cross validation : 6.101989

Average RMSE Leave one out : 4.776738

RMSE Vet : 7.503460

Average Coef

	Coef
PCV	6.363499
Weight	3.699569
PCV\ndonor	1.076496
Volume	0.214145

SVR

test state SVR

```
Index(['Weight', 'PCV', 'PCV\ndonor', 'Volume', 'WBC',  
'PLT\n_____',  
      'PLATELETS', 'HGB', 'RBC', 'MCV', 'MCHC', 'MCH',  
'SEGS', 'LYMPH',  
      'MONO', 'PROTEIN (REFRACT)', 'RDW'],  
      dtype='object')
```

Average SVR RMSE : 10.478592

RMSE Vet : 7.503460

XGboost

Average RMSE 10 fold cross validation Xg: 6.018278

Average Xg Leave one out : 5.134629

RMSE Vet : 7.503460

```
Index(['Weight', 'PCV', 'PCV\ndonor', 'Volume'],  
      dtype='object')
```

Average RMSE 10 fold cross validation Xg: 6.162467

Average Xg Leave one out : 5.555596

RMSE Vet : 7.503460

```
Index(['Weight', 'PCV', 'PCV\ndonor', 'Volume', 'WBC',
      'PLT\n_____',
      'PLATELETS', 'HGB', 'RBC', 'MCV', 'MCHC', 'MCH',
      'SEGS', 'LYMPH',
      'MONO', 'PROTEIN (REFRACT)', 'RDW'],
      dtype='object')
```

Ridge

train Ridge

test state Ridge

```
Index(['Weight', 'PCV', 'PCV\ndonor', 'Volume', 'WBC',
      'PLT\n_____',
      'PLATELETS', 'HGB', 'RBC', 'MCV', 'MCHC', 'MCH',
      'SEGS', 'LYMPH',
      'MONO', 'PROTEIN (REFRACT)', 'RDW'],
      dtype='object')
```

Average Ridge RMSE : 7.449860

RMSE Vet : 7.503460

Average Ridge Coef

	Coef
PCV	6.727510
Weight	3.003443
MCV	2.156846
RBC	2.128509
MCHC	1.804604
HGB	1.710020
SEGS	1.303322
WBC	1.239114
PCV\ndonor	1.211126
LYMPH	1.014212
PLT\n_____	0.961971
PROTEIN (REFRACT)	0.929198
PLATELETS	0.852249
MCH	0.685985
Volume	0.321164
RDW	0.188481
MONO	0.133101

```
train Ridge
test state Ridge
Index(['Weight', 'PCV', 'PCV\ndonor', 'Volume'],
dtype='object')
Average Ridge RMSE : 4.735336
RMSE Vet : 7.503460
Average Ridge Coef
          Coef
PCV          6.292126
Weight       3.621565
PCV\ndonor   1.079719
Volume       0.186835
```

```
NN ['Weight', 'PCV', 'PCV\ndonor', 'Volume']
```

```
activation='relu' Average RMSE : 21.176700
activation='tanh' Average RMSE : 21.156367
```