template

Author

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Cover_type

Cover_Type

1 2160

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dtype: int64

shape

(15120, 55)

dtypes

Elevation int64

Aspect int64

Slope int64

Horizontal_Distance_To_Hydrology int64

Vertical_Distance_To_Hydrology int64

Horizontal_Distance_To_Roadways int64

Hillshade_9am int64

Hillshade_Noon int64

Hillshade_3pm int64

Horizontal_Distance_To_Fire_Points int64

dtype: object

skew

Elevation 0.075640

Aspect 0.450935

Slope 0.523658

Horizontal_Distance_To_Hydrology 1.488052

Vertical_Distance_To_Hydrology 1.537776

Horizontal_Distance_To_Roadways 1.247811

Hillshade_9am -1.093681

Hillshade_Noon -0.953232

Hillshade_3pm -0.340827

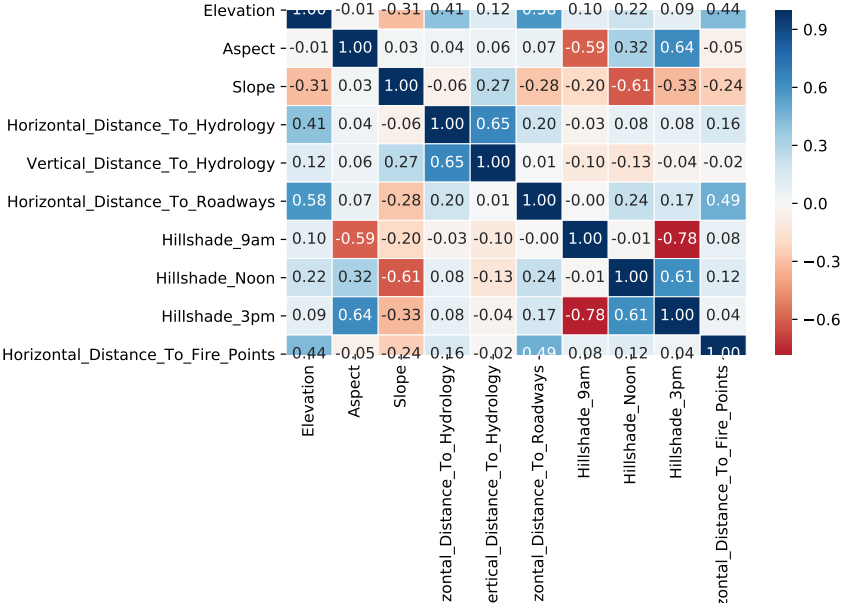
Horizontal_Distance_To_Fire_Points 1.617099

dtype: float64

description

	Elevation	Aspect	Slope	Horizontal_Distance_To_Hydrology	Vertical_Distance_To_Hydrology	Horizontal_Distance_To_Roadways	Hillshade_9am	Hillshade_Noon	Hillshade_3pm	Horizontal_Distance_To_Fire_Points
count	15120	15120	15120	15120	15120	15120	15120	15120	15120	15120
mean	2749.32	156.68	16.5	227.2	51.08	1714.02	212.7	218.97	135.09	1511.15
std	417.68	110.09	8.45	210.08	61.24	1325.07	30.56	22.8	45.9	1099.94
min	1863	0	0	0	-146	0	0	99	0	0
25%	2376	65	10	67	5	764	196	207	106	730
50%	2752	126	15	180	32	1316	220	223	138	1256
75%	3104	261	22	330	79	2270	235	235	167	1988.25
max	3849	360	52	1343	554	6890	254	254	248	6993

Corr


Elevation 1.00 -0.01 -0.31 0.41 0.12 0.58 0.10 0.22 0.09 0.44
Aspect -0.01 1.00 0.03 0.04 0.06 0.07 -0.59 0.32 0.64 -0.05
Slope -0.31 0.03 1.00 -0.06 0.27 -0.28 -0.20 -0.61 -0.33 -0.24
Horizontal_Distance_To_Hydrology 0.41 0.04 -0.06 1.00 0.65 0.20 -0.03 0.08 0.08 0.16
Vertical_Distance_To_Hydrology 0.12 0.06 0.27 0.65 1.00 0.01 -0.10 -0.13 -0.04 -0.02
Horizontal_Distance_To_Roadways 0.58 0.07 -0.28 0.20 0.01 1.00 -0.00 0.24 0.17 0.49
Hillshade_9am 0.10 -0.59 -0.20 -0.03 -0.10 -0.00 1.00 -0.01 -0.78 0.08
Hillshade_Noon 0.22 0.32 -0.61 0.08 -0.13 0.24 -0.01 1.00 0.61 0.12
Hillshade_3pm 0.09 0.64 -0.33 0.08 -0.04 0.17 -0.78 0.61 1.00 0.04
Horizontal_Distance_To_Fire_Points 0.44 -0.05 -0.24 0.16 -0.02 0.49 0.08 0.12 0.04 1.00
Elevation
Aspect
Slope
zontal_Distance_To_Hydrology
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zontal_Distance_To_Roadways
Hillshade_9am
Hillshade_Noon
Hillshade_3pm
zontal_Distance_To_Fire_Points
0.9
0.6
0.3
0.0
−0.3
−0.6

select_method

```
1 def drop_by_cor(feature_df, threshold=0.9):
2     corr_matrix = feature_df.corr().abs()
3     upper = corr_matrix.where(np.triu(np.ones(corr_matrix.shape),
          k=1).astype(np.bool))
4     to_drop = [column for column in upper.columns if
          any(upper[column] > threshold)]
5     return to_drop
```

features_remain_with_thres_as_70

9 Slope, Vertical_Distance_To_Hydrology, Horizontal_Distance_To_Hydrology, Hillshade_Noon, Elevation, Horizontal_Distance_To_Roadways, Hillshade_9am, Aspect, Horizontal_Distance_To_Fire_Points