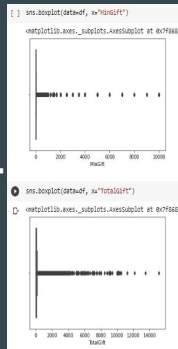
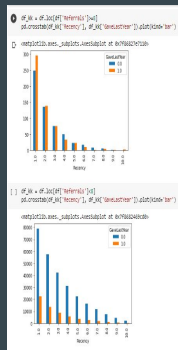


Cortex: Fundraising Using SAS and Python

Exploration



Missing values

‘dropNa()’



‘fillNa()’



Dummies & New Variables

- ‘Referrals’
- ‘City’
- ‘Education’

- ‘AvgGift’
- ‘AvgPart’
- ‘Infinity’
- ‘Nan’



Scaler

MinMaxScaler()

Models

- XGBoost

```
from xgboost import XGBRegressor
```

```
xgb_model = XGBRegressor(objective='reg:squarederror',max_depth='3',learning_rate='0.2').fit(X_train, Y_train)
Xgb_predict = xgb_model.predict(X_valid)
```

- DecisionTree

```
DT_model = DecisionTreeClassifier(max_depth=7,criterion='entropy').fit(X_train,Y_train)
DT_predict_proba = DT_model.predict_proba(X_valid) #Predictions on Testing data
DT_predict = DT_model.predict(X_valid) #Predictions on Testing data
```

- PCA

```
pca = PCA(n_components=20)
X_train = pca.fit_transform(X_train)
X_valid = pca.transform(X_valid)
```

Results

11	Edgar Antonio Galarza Lopez	\$12,072,935.00	\$3,300,000.00	180000
12	Eduardo Alvarado	\$12,020,170.00	\$2,800,000.00	160000
13	Felipe Yezpez	\$12,005,920.00	\$2,550,000.00	150000
21	Mariana Perez	\$11,238,075.00	\$3,050,000.00	170000
22	Eduardo Alvarado	\$10,651,465.00	\$300,000.00	60000
23	Izael Manuel Rascon Duran	\$10,180,850.00	\$300,000.00	60000

12° at
NB=160k

22° at
NB=60k