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svm

```
In [54]: import matplotlib.pyplot as plt
         import numpy as np
         from sklearn import datasets
         from sklearn.metrics import f1 score, mean squared error
         from sklearn.model selection import train test split
         from sklearn.preprocessing import StandardScaler
         from sklearn.svm import SVC
         from sklearn.model selection import validation curve
In [58]: wine = datasets.load wine()
         wine x = wine.data
         wine y = wine.target
         x train, x test, y train, y test = train test split(wine x, wine y, test size=0.20)
         scaler = StandardScaler()
         x train = scaler.fit transform(x train)
         x test = scaler.transform(x test)
         model = SVC(kernel="sigmoid")
         model.fit(x train, y train)
         y pred = model.predict(x test)
         f1 score(y test, y pred, average="micro")
```

Out[58]: 0.97222222222222

CONCLUSION: Support Vector Machine gave us the most optimal results.