INTRODUCTION

Face detection system

Google Colab, Python

NEAREST NEIGHBOR CLASSIFICATION

using sklearn.neighbors, KNeighborsClassifier, we train the model to be able to preict the face data

```
from sklearn.neighbors import KNeighborsClassifier
knn = KNeighborsClassifier()
knn.fit(X_train, y_train)
```

```
▾ KNeighborsClassifier
KNeighborsClassifier()
```

```
#gauging the accuracy of predictions after training
predictions = knn.predict(X_test)
from sklearn.metrics import accuracy_score
accuracy_score(y_test, predictions)
```

```
0.9266666666666666
```

RESULTS

01

- Support Vector Machine did not go past 85% accuracy. Using Nearest Neighbour allow 92% to be reached

02

- Changing the test size to 0.25 maximised the accuracy

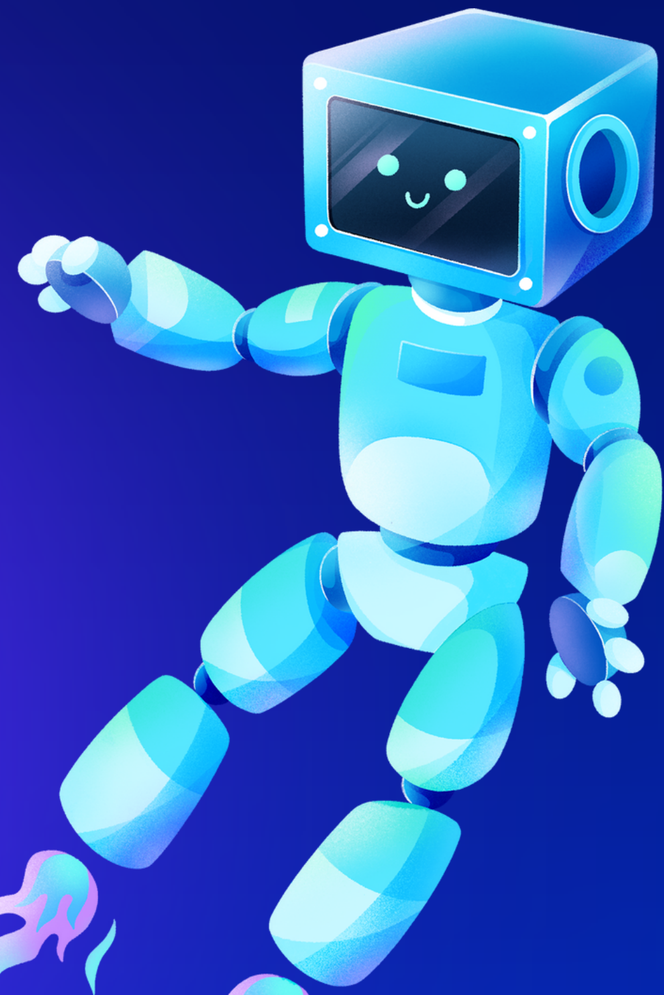
CONCLUSIONS

MODEL APPLICATION

Utilise the model in a convenience/beauty store, determine the best product depending on face shape

REASONS

Model is trained for too little sets and has too low accuracy to be used for policing or security purposes



THANK YOU!