

Model Deployment Using Heroku

Model

```
ModelDeployment.py X
model_deployment > ModelDeployment.py
1  import pickle
2
3  import pandas as pd
4  from sklearn.preprocessing import StandardScaler
5  from sklearn.ensemble import RandomForestClassifier
6  from sklearn.model_selection import train_test_split
7  import pickle
8
9  #import csv data
10
11  df = pd.read_csv("iris_flower.csv")
12
13  #view data
14
15  df.head()
16
17  #select the independent and dependent variables
18  X = df[["Sepal_Length", "Sepal_Width", "Petal_Length", "Petal_Width"]]
19  y = df["Class"]
20
21  #Split data into train and test
22
23  X_train, X_test, y_train, y_test = train_test_split(X, y, test_size=0.3, random_state=50)
24
25  #Feature scaling
26  sc = StandardScaler()
27  X_train = sc.fit_transform(X_train)
28  X_test = sc.transform(X_test)
29
30  #Instantiate model
31  classifier = RandomForestClassifier()
32
33  #fit model
34  classifier.fit(X_train, y_train)
35
36  #create pickle file of model
37  pickle.dump(classifier, open("model.pkl", "wb"))
```


APP

```
1 import numpy as np
2 from flask import Flask, request, jsonify, render_template
3 import pickle
4
5 #create flask app
6
7 app = Flask(__name__)
8
9 #Load pickle model
10
11 model = pickle.load(open("model.pkl", "rb"))
12
13 #Define method
14
15 @app.route("/")
16 def home():
17     return render_template("index.html")
18
19 @app.route("/predict", methods=["POST"])
20 def predict():
21     float_features = [float(x) for x in request.form.values()]
22     final_features = [np.array(float_features)]
23     prediction = model.predict(final_features)
24
25     return render_template("index.html", prediction_text="This iris specie is called {}".format(prediction))
26
27 if __name__ == "__main__":
28     app.run(debug=True)
```

Requirements

```
1 flask==1.1.1
2 gunicorn==19.19.0
3 itsdangerous==1.1.0
4 jinja2==2.10.1
5 MarkupSafe==1.1.1
6 Werkzeug==0.15.5
7 numpy>=1.9.2
8 scipy>=0.15.1
9 scikit-learn>=0.18
10 matplotlib>=1.4.3
11 pandas>=0.19
12
```

PROCFILE

```
model_deployment >  profile
```

```
1 web: gunicorn app:app
```

Deploying app

salesforce Platform

HEROKU

Jump to Favorites, Apps, Pipelines, Spaces...

Only enable this option if you have a continuous integration service configured on your repo.

Enable Automatic Deploys



Manual deploy

Deploy the current state of a branch to this app.





Deploy a GitHub branch

This will deploy the current state of the branch you specify below. [Learn more.](#)


Choose a branch to deploy

 Master 

Deploy Branch

Receive code from GitHub	
Build Master 88030a52	
Release phase	
Deploy to Heroku	

Your app was successfully deployed.

 [View](#)

Got an application error after deployment of app, please i am working on resolving it, and will put an update of the resolved version once done. Thank you



Application error

An error occurred in the application and your page could not be served. If you are the application owner, [check your logs for details](#).

You can do this from the Heroku CLI with the command

```
heroku logs --tail
```