

## THE DATA MINING PROJECT

### Bike Sharing Demand

#### Data Description:

The recipe ingredients of categorized cuisine are provided.

The aim is predicting the category of a dish's cuisine given a list of its ingredients.

The data is stored in JSON format.

#### Data Fields:

**id** – the recipe id

**cuisine** – the type of cuisine

**ingredients** – the list of ingredients of each recipe (of variable length)

Link to data: <https://www.kaggle.com/c/whats-cooking/data>

#### Used Methods:

Logistic Regression Model

One-Vs-Rest Logistic Regression

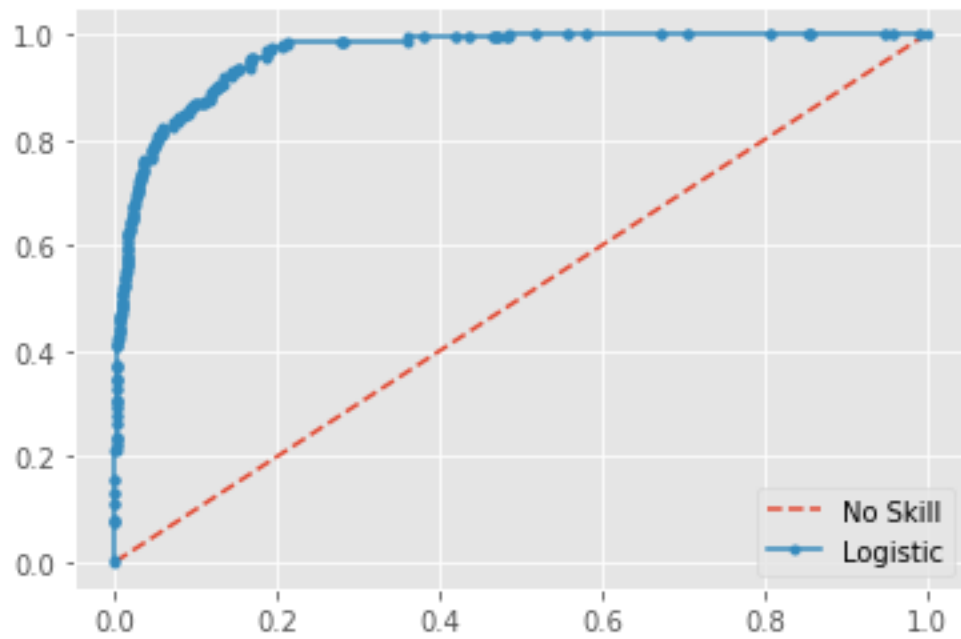
Random Forest Classifier

KNN Classifier

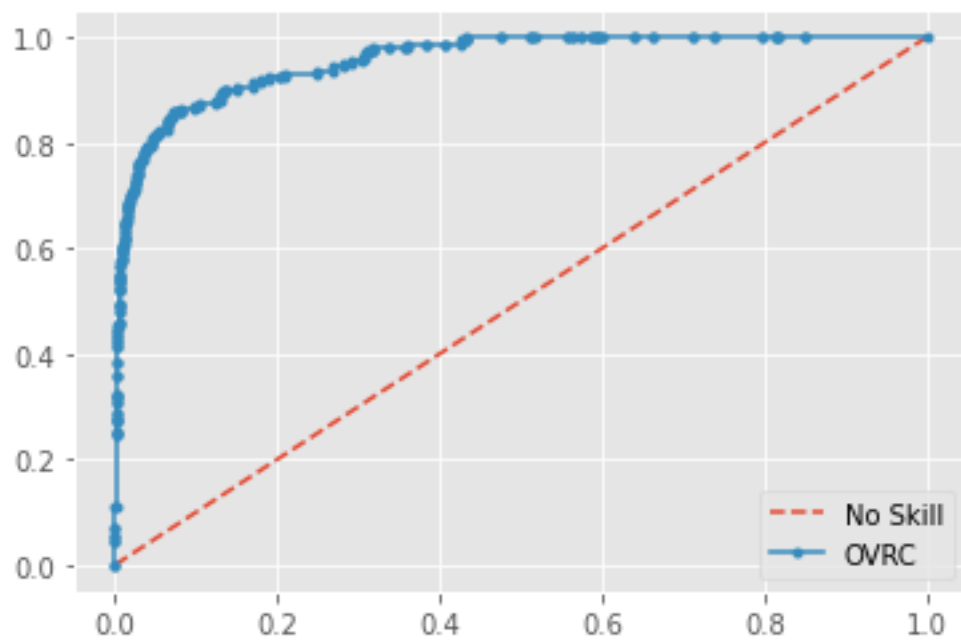
SVM Classifier

## Evaluation Method: ROC

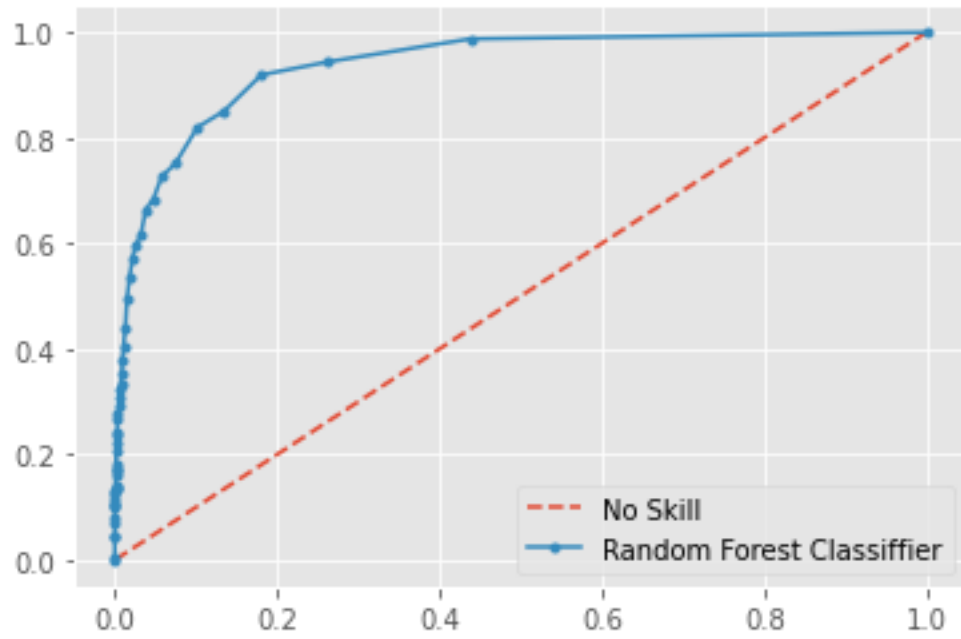
### 1) Logistic Regression



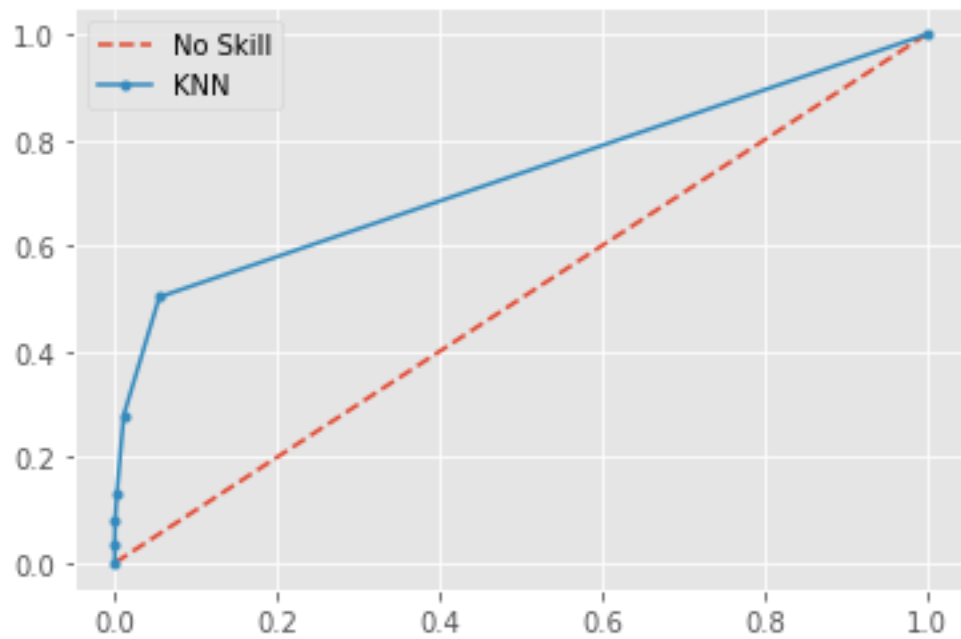
### 2) One-Vs-Rest Logistic Regression



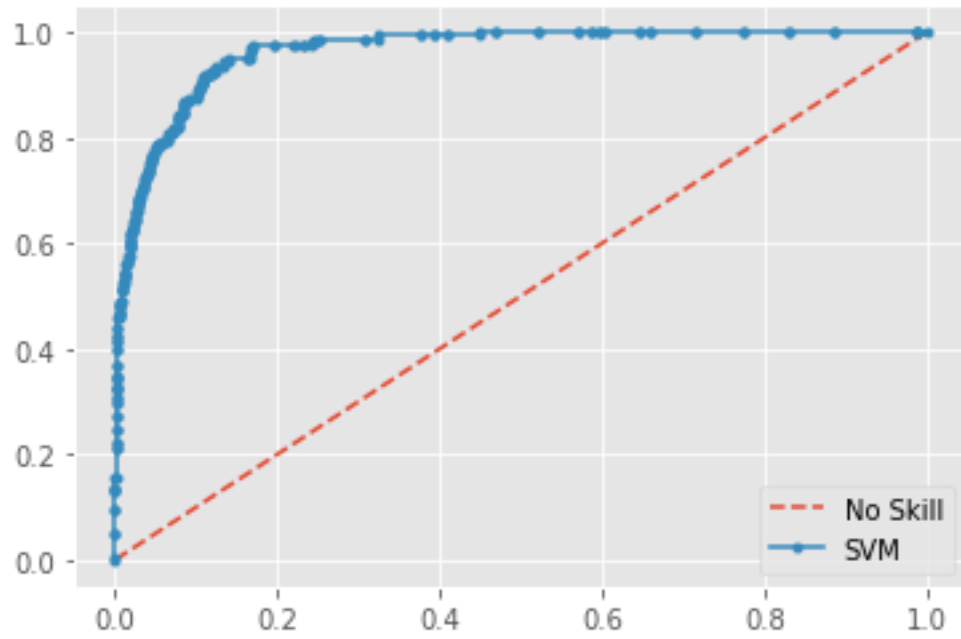
### 3) Random Forest Classifier



### 4) KNN Classifier



### 5) Calibrated SVM Classifier



As can be seen, the One-Vs-Rest Logistic Regression gave results performing better than the others.