The Locust antenna as an odor discriminator

Baseline model report

Random sampler model

This is our baseline model, which only sample from the distribution of train data labels in order to predict the input features.

```python
class BaselineModel:
    """random sampler from train labels"""
    def __init__(self):
        self.labels = None

    def fit(self, X, y):
        """recives pandas series as training labels and store them for predictions"""
        self.labels = y.values

    def predict(self, X):
        """predict random labels from training set at the length of input"""
        res = np.random.choice(self.labels, X.shape[0])
        return res
```

This is the output of the model:

```
Report:
    Accuracy: 13%
    Precision: 14%
    Sensitivity: 12%
    F1 score: 13%
```

Random forest model

We runned also a random forest classifier.
This was the results:

```
Report:
    Accuracy: 72%
    Precision: 70%
    Sensitivity: 72%
    F1 score: 70%
```