

# Lab 14 04-11-2022

November 3, 2022

## 1 Boolean AND Gate

### 1.1 Loading dataset and initializing

```
[5]: from sklearn.linear_model import Perceptron

x_train = [[0,0],[0,1],[1,0],[1,1]]
y_train = [0,0,0,1]
print(x_train,"\n",y_train)
```

```
[[0, 0], [0, 1], [1, 0], [1, 1]]
[0, 0, 0, 1]
```

### 1.2 Model Creation

```
[6]: classifier = Perceptron(tol=1e-3, random_state=0)
classifier.fit(x_train,y_train)
```

```
[6]: Perceptron()
```

### 1.3 Prediction

```
[8]: y_pred = classifier.predict(x_train)
print(y_pred)
```

```
[0 0 0 1]
```

```
[9]: print(classifier.coef_,classifier.intercept_)
```

```
[[2. 2.] [-2.]
```