Quiz 2:

Introduction to Supervised Learning

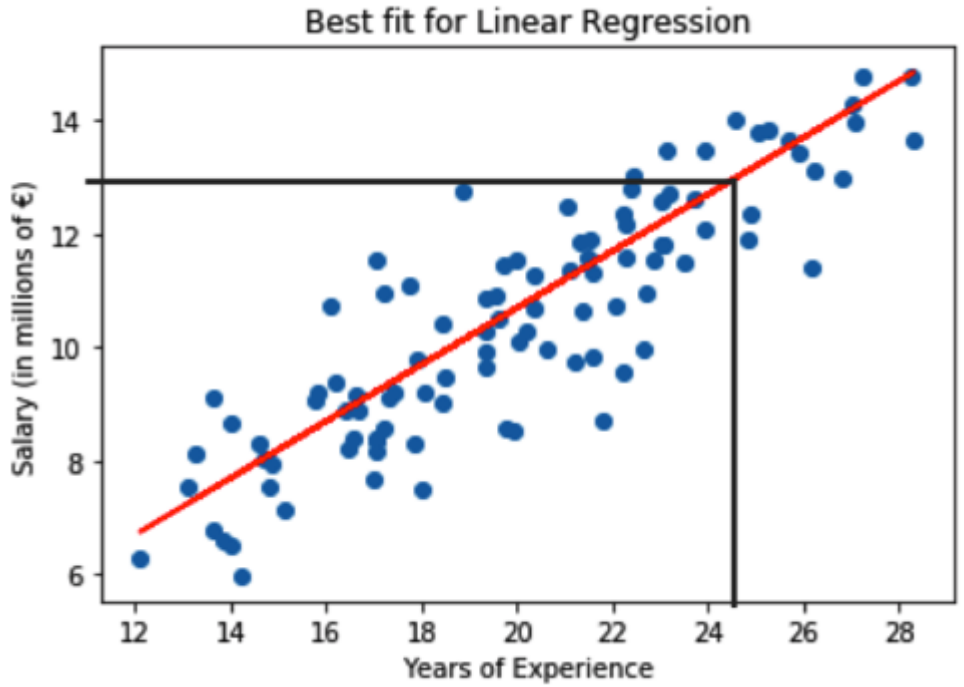
*Required

1. Email address *

2. Please enter your name: *

Linear Regression/Logistic Regression

3. Which model aims to fit the best line based on the following data ? 1 point



Mark only one oval.

- ◯ Logistic Regression
- ◯ Linear Regression
- ◯ Hidden Markov Model

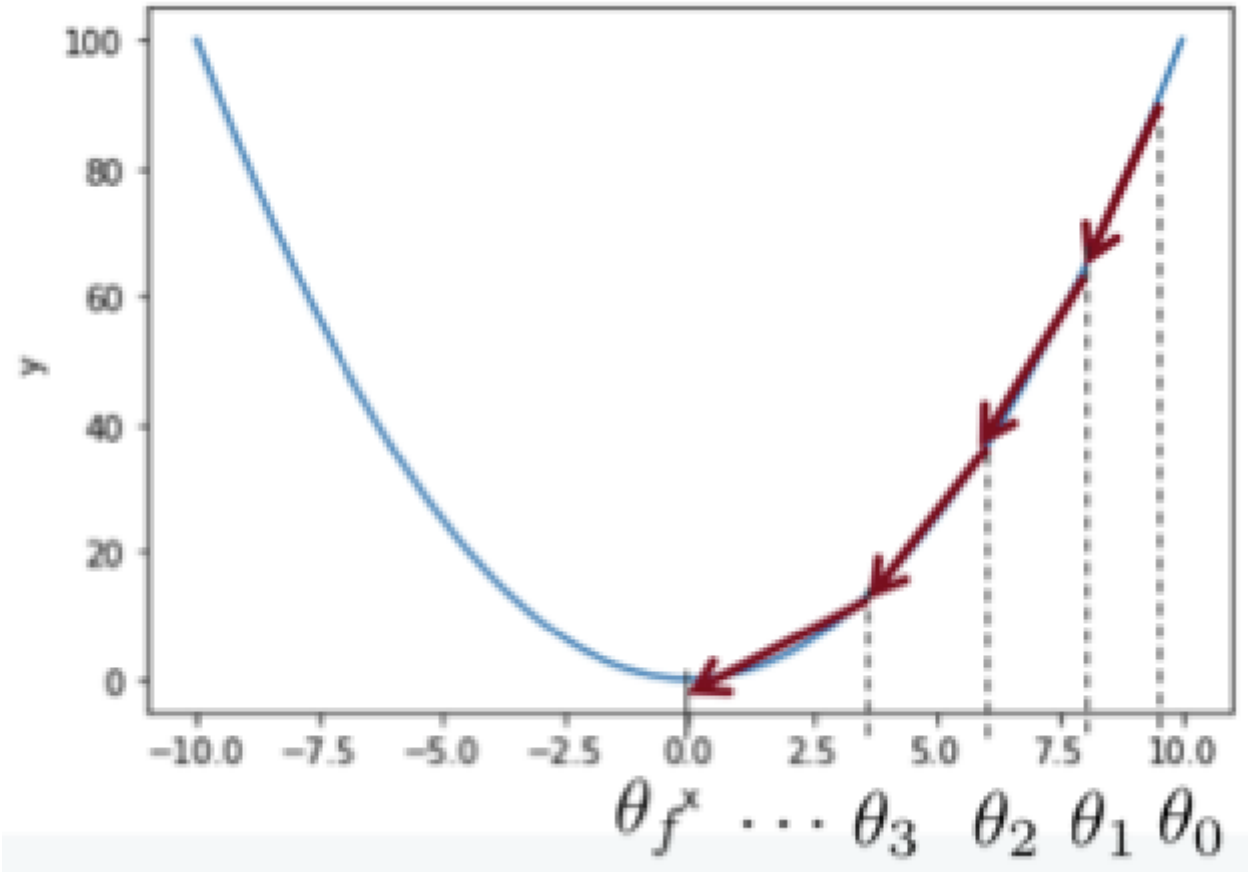
4. What model is summarized as follows? 1 point

$$\forall i \in \{1, \ldots, N\} \quad Y_i | X_i = x_i \sim \mathcal{B}(\sigma(w^T x_i))$$

Mark only one oval.

- Bernoulli model
- Logistic Regression
- Linear Regression

5. What algorithm should be used to learn the parameters of Linear Regression and Logistic Regression? 1 point

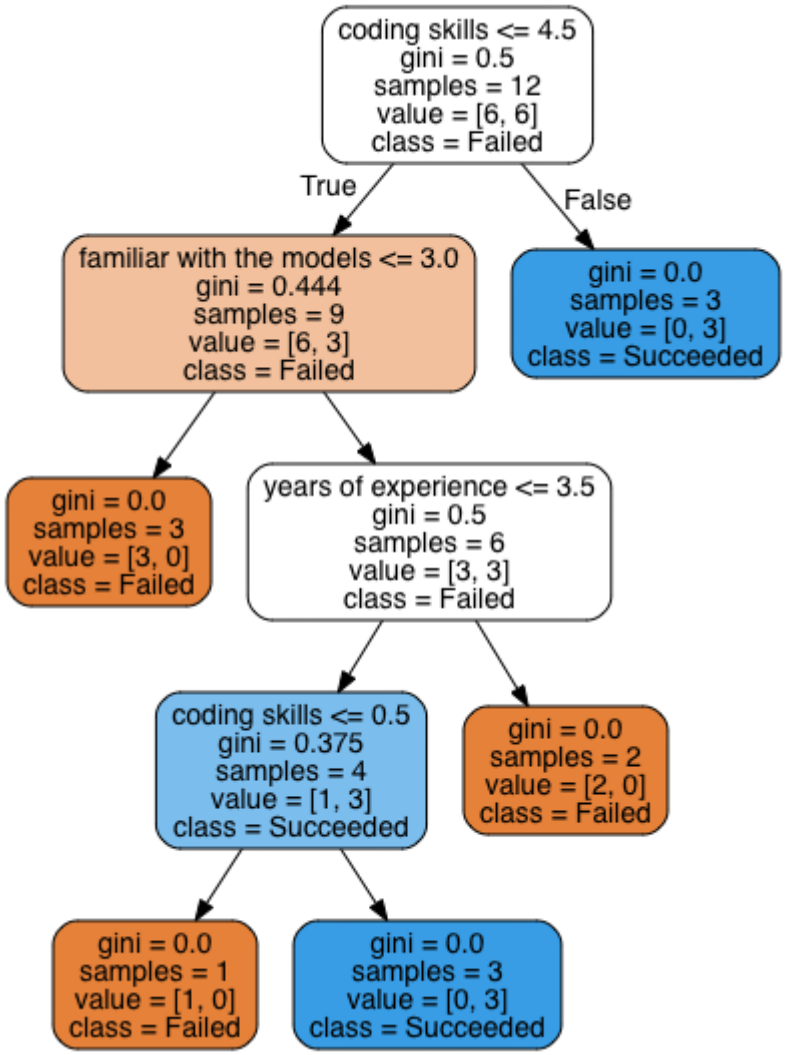


6. What are the two hyperparameters that should be chosen before applying the Gradient Descent algorithm? 2 points

Decision Trees Algorithm

We want to predict whether someone is going to succeed or fail in a Machine Learning Interview based on the following features: "years of experience", "coding skills" (with discrete values in [0, 5]), "familiar with the models" (with discrete values in [0, 5]), and "like chocolate"(with binary output 0/1). We obtain the following graph of decision

Graph of decision



7. How many candidates have succeeded? 1 point

Mark only one oval.

- 4
- 5
- 6

8. How many candidates have failed? 1 point

Mark only one oval.

- 2
- 4
- 6

9. If a candidate has the following characteristics: 2 years of experience, 0 for coding skills, and 4 for the familiarity with the models. What would the algorithm predict? 1 point

Mark only one oval.

- Successed
- Failed

10. What is the minimum value of "coding skills" that can change the prediction value in the previous example? 1 point

Mark only one oval.

- ◯ 1
- ◯ 2
- ◯ 3

11. Give one of the hyperparameters for the Decision Trees Algorithm and one for the Random Forest Algorithm? 1 point

Programming Session

12. Did you understand the problem?

Mark only one oval.

- ◯ Yes
- ◯ No

13. Would you like to be part of the additional course on Python?

14. Any comment?