SAAS CX Homework 9

§1 Introduction

Problem 1.1. How does **classification** differ from **regression** ?

Problem 1.2. Why does ordinary least squares linear regression not perform well in classification tasks?

Problem 1.3. What is the difference between a **generativ e** model and a **discriminative** model?

Problem 1.4. For each of the following models, (i) categorize the model as generative or discriminative, (ii) describe how the decision boundary is determined, (iii) identify how optimization is performed to determine the solution for the weights.

- Logistic Regression

- Gaussian Discriminant Analysis

- Support Vector Machine

Problem 1.5. What is the loss function used in logistic regression?