

Machine Learning Project Report

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1 Task Overview

In this project we tested if common models like kernel svms, perceptrons as well as decision tree ensembles suffer from the bias-variance tradeoff. For this purpose we trained and tested the models on simple datasets like concentric bands, interleaving half-moons, spirals and separated Gaussian clusters to produce signs of underfitting and especially of overfitting.

2 Methods

$$\min_{\mathbf{w}} \quad \frac{1}{2} \|\mathbf{w}\|^2 + C \sum_{i=1}^n \xi_i$$

Mention any design decisions or implementation notes.

3 Experiments and Results

4 Discussion