

SVM

Analyze SVM Strengths and Weaknesses

- **Strengths:** Effective in high-dimensional spaces, works well with clear margin of separation, robust against overfitting in high-dimensional space.
- **Weaknesses:** Sensitive to the choice of kernel and regularization parameter, can be slow with large datasets.

Discuss Practical Implications

- SVM can be used effectively for binary classification tasks in various domains (e.g., medical diagnosis, image recognition) where clear margins exist. However, it may require careful tuning and validation for optimal performance.