

DJS-Compute
Machine Learning
Assignment-5

Topic: Support Vector Machine

General Instructions:

- The deadline for completing the tasks is **31st January, 2024**. A discussion session, addressing any doubts and task related topics, will be conducted in the following days.
- You can refer to additional online resources if needed.

Reference material:

- **Intro to SVM and basic Python code for it**
 1. <https://www.javatpoint.com/machine-learning-support-vector-machine-algorithm>
 2. <https://www.youtube.com/watch?v=TtKF996oEI8>
- **What is GridSearchCV? What does it do?**
<https://www.mygreatlearning.com/blog/gridsearchcv/#:~:text=GridSearchCV%20is%20a%20technique%20for,parameter%20values%2C%20predictions%20are%20made.>
- **GridSearchCV in SVM**
<https://www.geeksforgeeks.org/svm-hyperparameter-tuning-using-gridsearchcv-ml/>
- **SVM Master Notebook**
<https://colab.research.google.com/drive/1-vntGRmOuKt1DfOYNepripVxRQQaKfW5?usp=sharing>

Task-1: Linear Support Vector Classifier (SVC)

https://colab.research.google.com/drive/1THP_4pzqB7JaxFsguxKW5MRrpmah5mHB?usp=sharing

Task-2: SVC and its kernels

<https://colab.research.google.com/drive/16nZsHsqlpUTfzg6KEfs3jwjTuHj0T5mS?usp=sharing>

Task-3: SVR and its kernels

https://colab.research.google.com/drive/1soYwyluZnrvk48t_E39PM_Md8ecBL_bu?usp=sharing