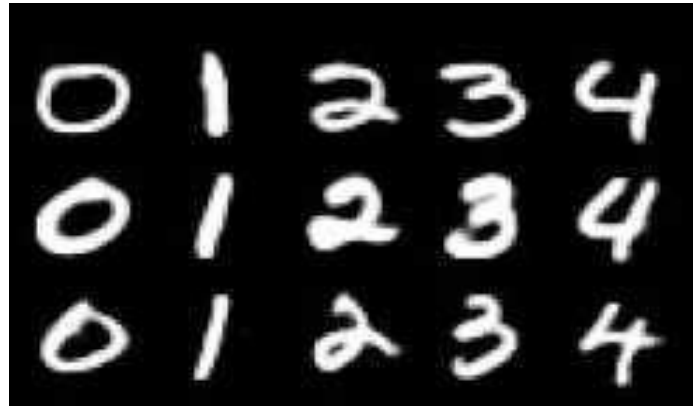


Machine Learning 2023 spring

HW3: Supporting Vector Machine

Deadline: 112.5.5

In this homework, you need to use **SVM** models to classify the hand-written numbers from zero to four.



Please use **LIBSVM** library in

<https://www.csie.ntu.edu.tw/~cjlin/libsvm/#download>

To do:

1. Implement v-SVM model:
compare the performance difference with the different kernel types and different ν values.
2. Implement C-SVM model:
compare the performance difference with the different kernel types and different C values.
3. Choose one of the models you've trained to do analysis and find those "supporting vectors" for this model.

Homework Rules and Grading Policy

Homework will be graded by:

1. Your discussion about SVM models.

Upload:

[web] E3

[File Name] hw3_StudentID.zip (ex: hw2_1234567.zip)

Remind:

1. Your report in the format of .pdf.
2. Deadline:

If you have a late submission by 1 to 7 days, you will only get 70% of the score. We DO NOT accept any late submission after 7 days after the deadline.