



ENGR-UH 4560

Selected Topics in Information and Computational Systems

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Assignment Title:	SVM for Classification

- **Part 1 – Linear Kernel**

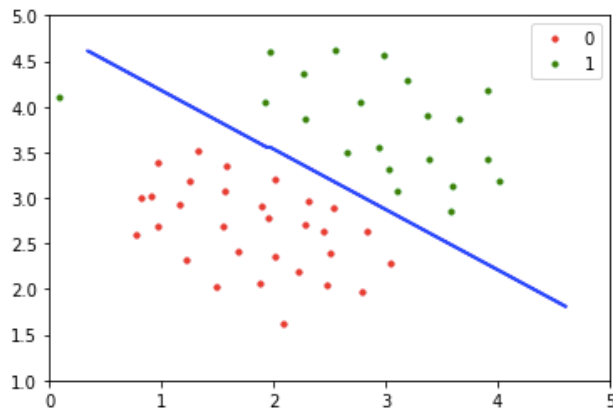
- Code

First, I'm getting data and plotting it to see what it looks like. Then I'm using sklearn's SVC function to generate the boundary line of different classes. Then I'm plotting the boundary line.

- How To Run

First, go the jupyter notebook file and run the first cell that imports all the required modules. Then start running each block one by one until there is a plot with the boundary line.

- Plots



- **Part 2 – Gaussian Kernel**

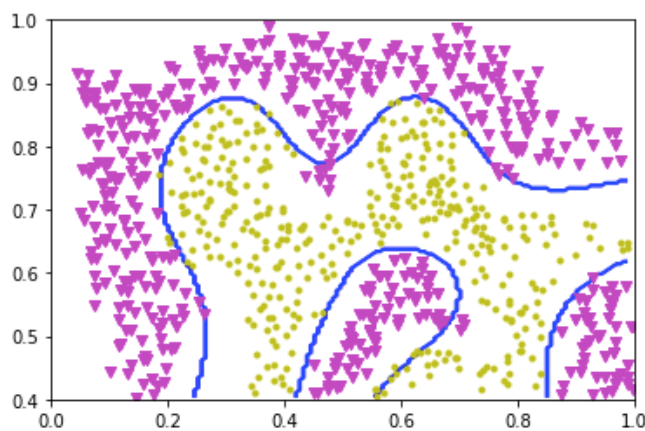
- Code

Again, I get the data and plot it to see what it looks like. Here a linear kernel won't be good. So I'm using sklearn's SVC with the Gaussian kernel to generate the boundary line of classes. Then I'm plotting the boundary line.

- How To Run

Run each cell one by one until there is a plot with the boundary line.

- Plots



- **Part 3 – Cancer Data**

- Code

First, I import the data from sklearn's datasets. Then I use sklearn's SVC with the linear kernel to generate the classification boundary line. Then I generate the classification report.

- How To Run

Run each cell one by one until there is a plot with the boundary line.