

Final Project Update 2

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Progress Since Proposal

Since the last update, I was able to address the handling of the large dataset without crashing of my program. I was able to successfully validate my Least Squares model and also create my Support Vector Machine model. The two models I have utilize the full training set to train and the test set to test, as defined by the Fashion MNIST sets given. I am currently working on fixing an issue with the support vector machine and finishing the cross-validation code for each of the two models for comparison of average error.

The main issue I have found with my support vector model is that it is not converging. I am using a built-in LinearSVC for the one-vs-all classifiers and even with high variations and large numbers of iterations it is not converging. I think I will implement it with each one-vs-all classifier individually to see if this makes convergence easier. Other than this convergence issue though the code is operational.

Next Steps/Updated Timeline

The next major step I will take is finishing the cross-validation code for the two algorithms already successfully implemented. Then I will continue on with the neural networks algorithms and comparing the performance of each. That will allow me to finish the comparison and write the final report. I have updated my timeline due to my delays as follows:

Task	Timeframe
Application of Neural Networks	Dec 1 - Dec 8
Cross-Validation	Dec 1 - Dec 8
Writing Final Report	Dec 8 - Dec 12

Link to Relevant Results on GitHub

https://github.com/klsalmon/ECE532_FinalProject