Challenge A: Comparison of Optimizer

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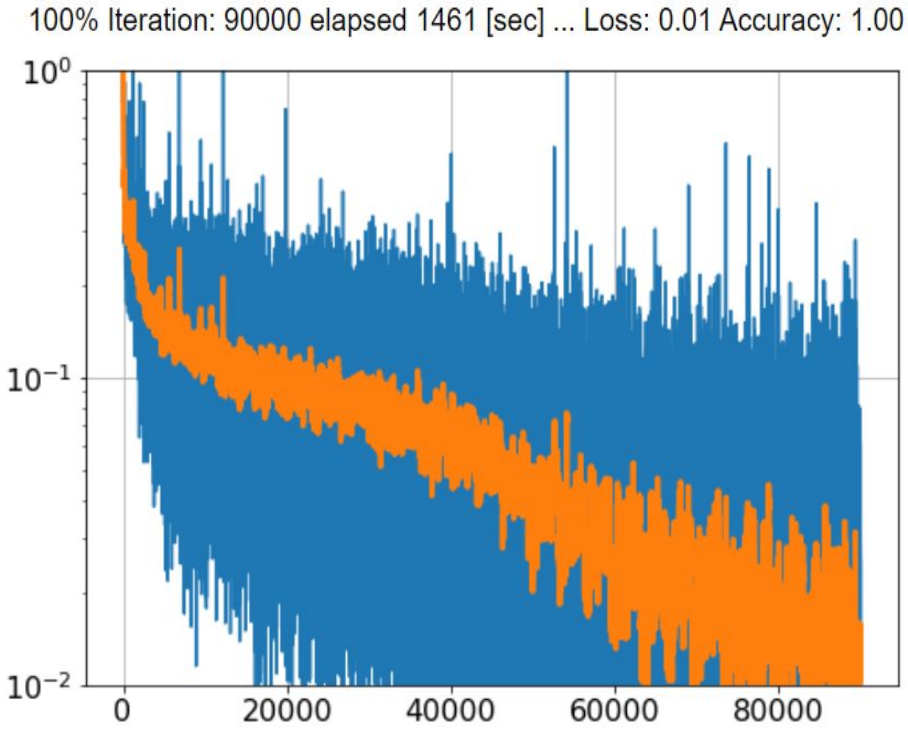
INTRODUCTION

Goal:

- Implementing the simple CNN model for image classification
- Investigating the different iteration number effect on the loss and accuracy at data training models by comparing the different optimizer

ORIGINAL DATA TRAINING

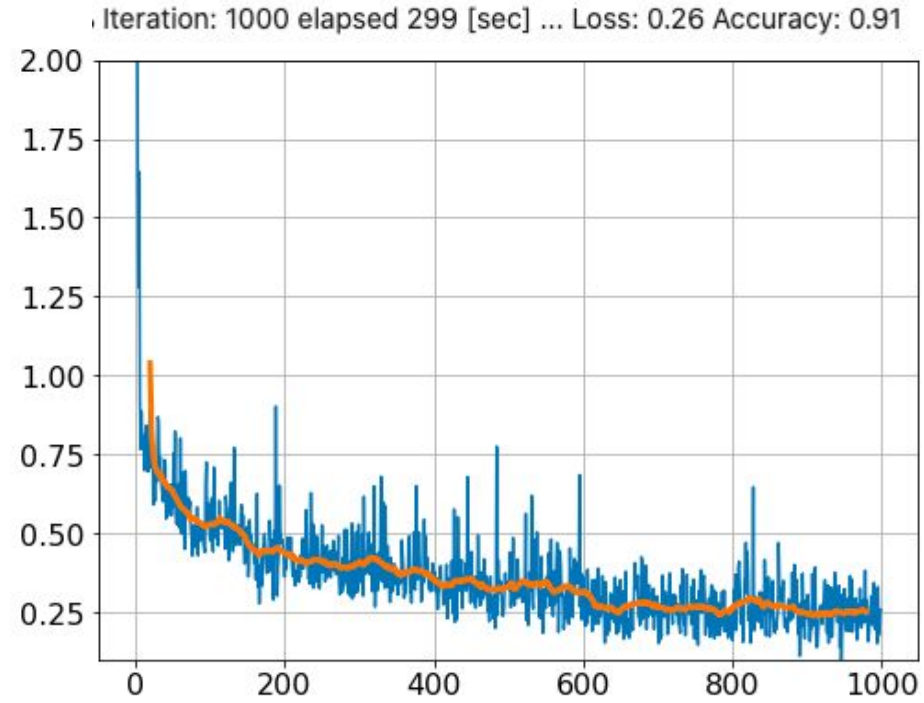
Training sample: 50%
Number of Iteration: 90000



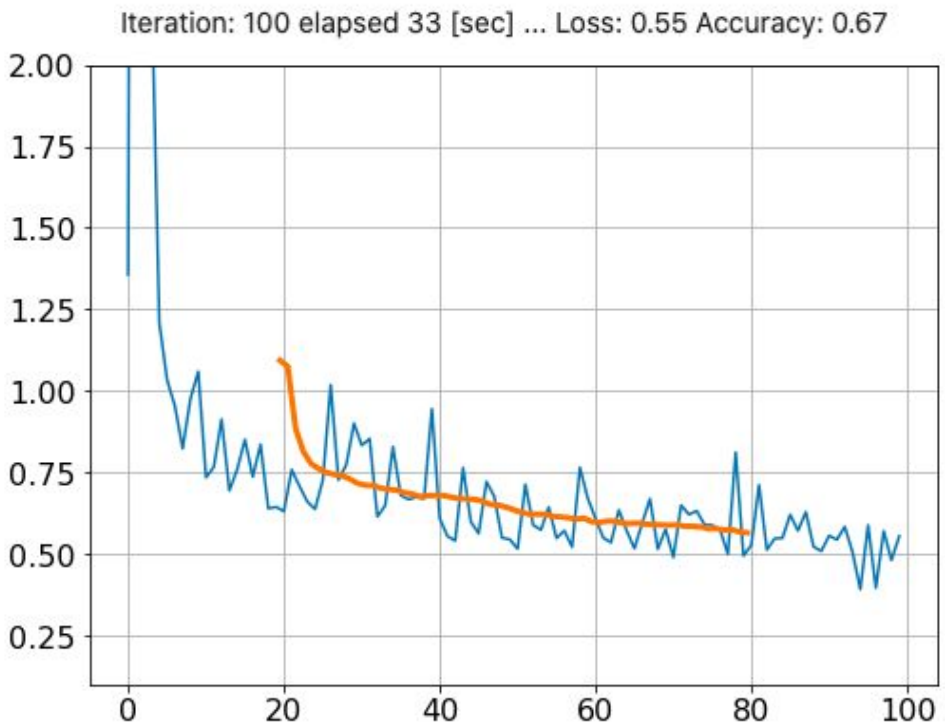
Comparison of Number of Iteration

Optimizer: Adam

Training sample: 50%
Number of Iteration: 1000



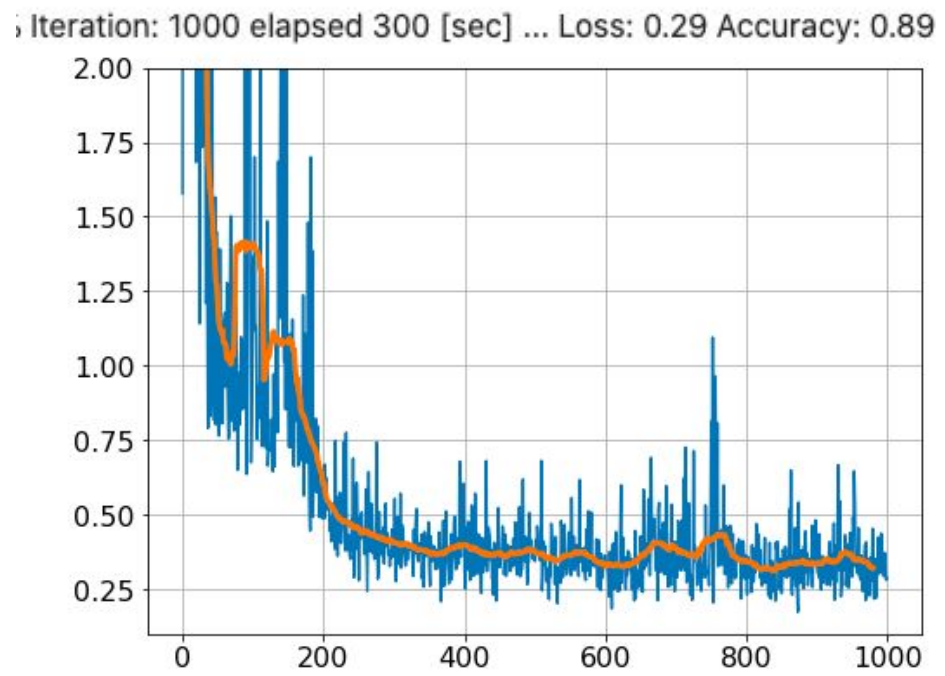
Training sample: 50%
Number of Iteration: 100



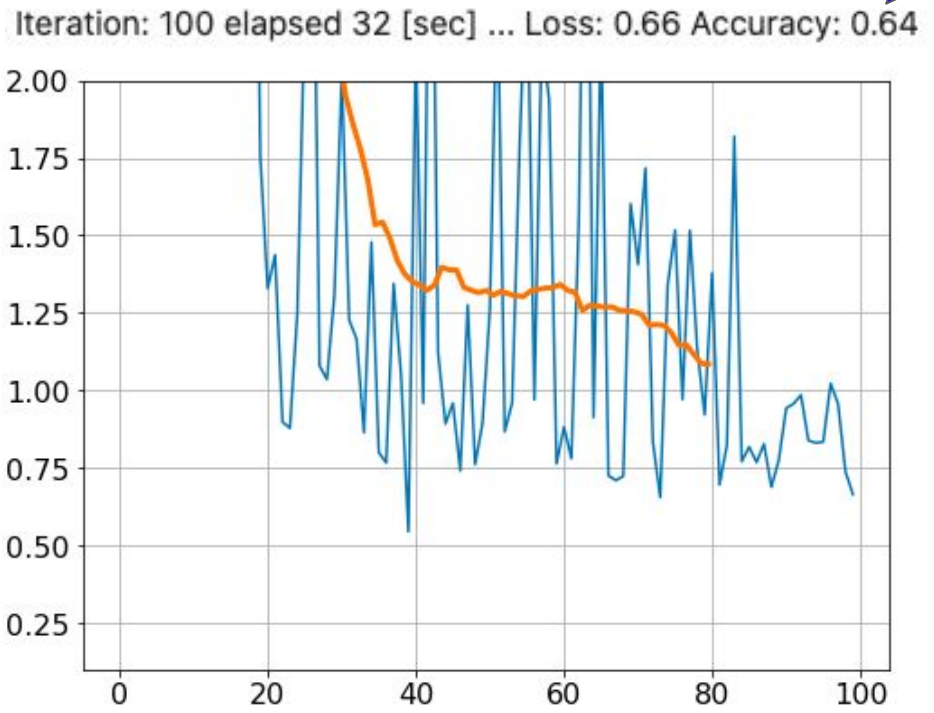
Comparison of Number of Iteration

Optimizer: SGD

Training sample: 50%
Number of Iteration: 1000



Training sample: 50%
Number of Iteration: 100



CONCLUSION

- SGD optimizer is better than Adam because of the convergent of loss function is faster.
- The optimum number of iteration can be below 500, because the loss and accuracy number are already stable and convergent.

Thank you