

*Assignment on:*  
**Feed-forward Neural Network**



Bangladesh University of Engineering and Technology

**Course:** CSE 472 (Machine Learning Sessional)

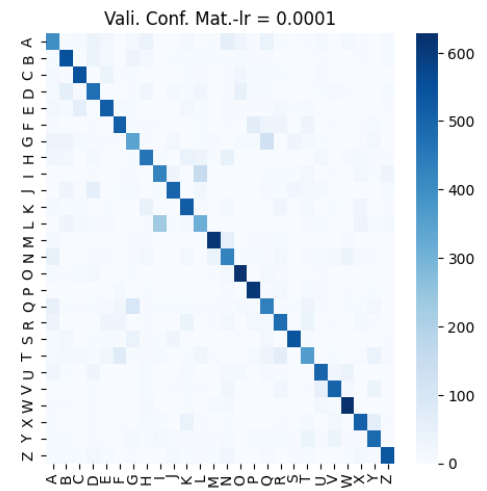
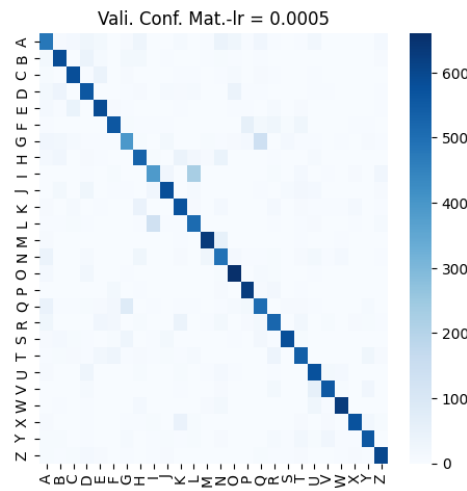
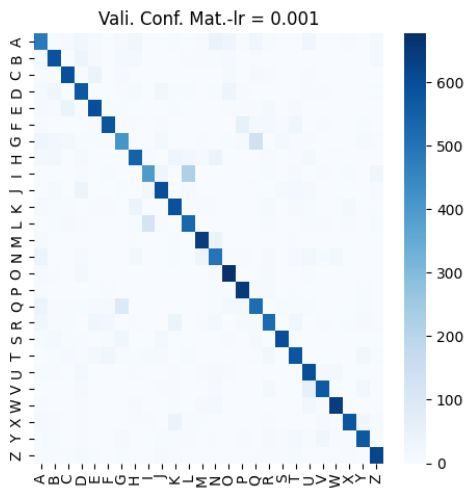
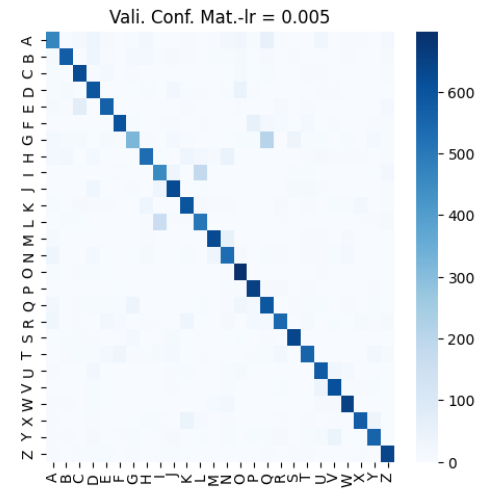
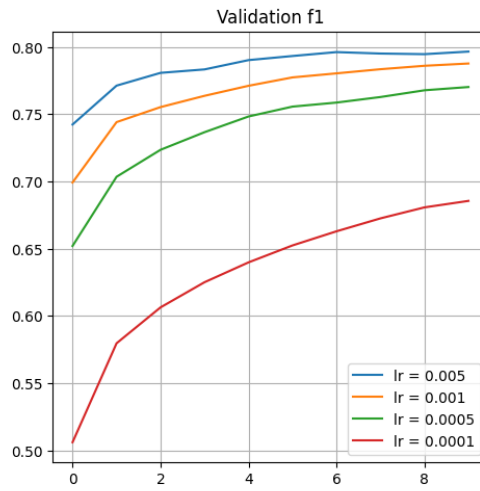
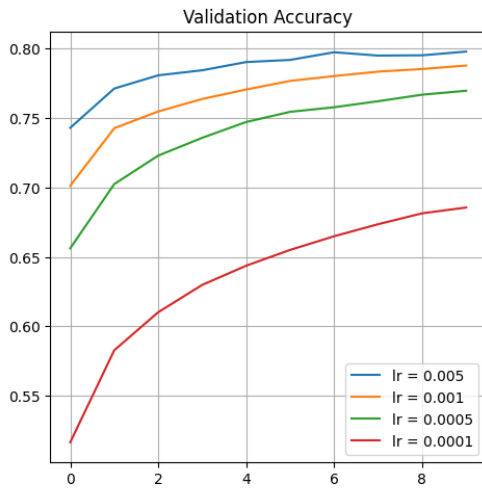
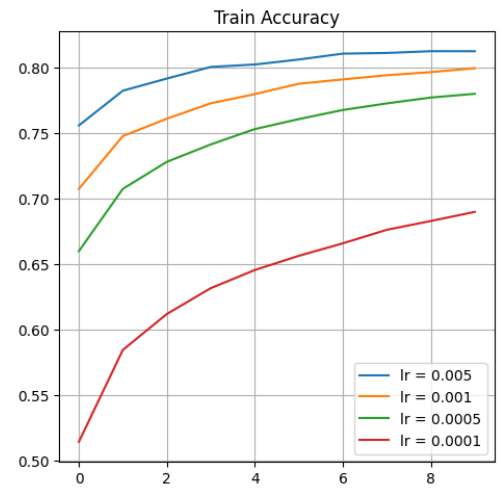
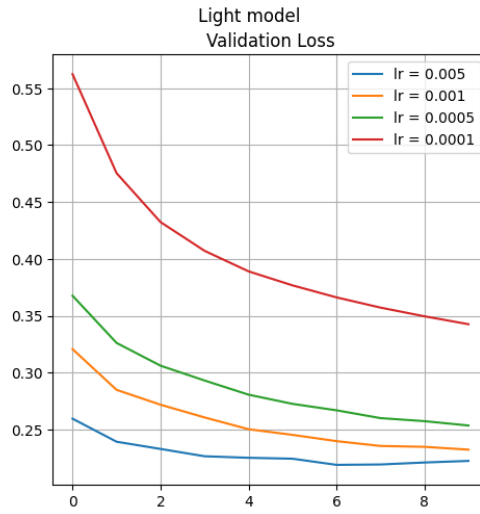
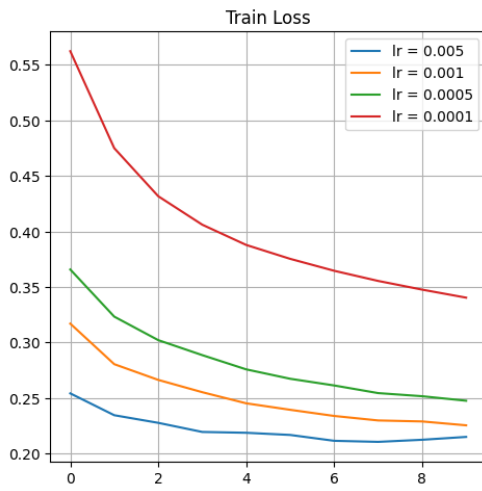
**Date of Submission:** 03.01.2024

**Submitted by:**

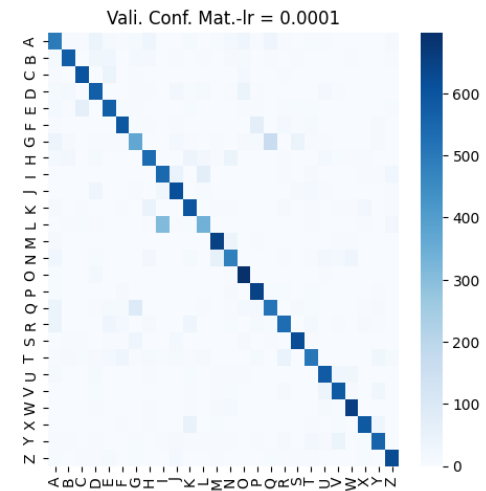
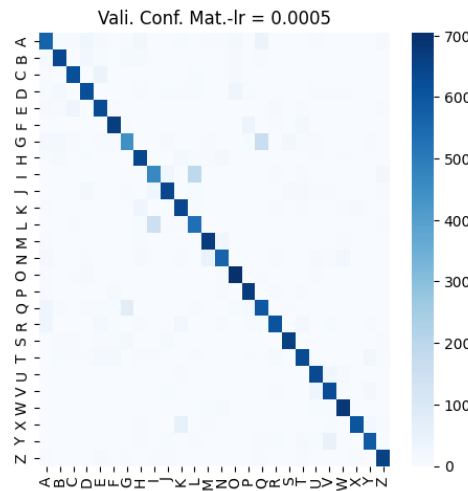
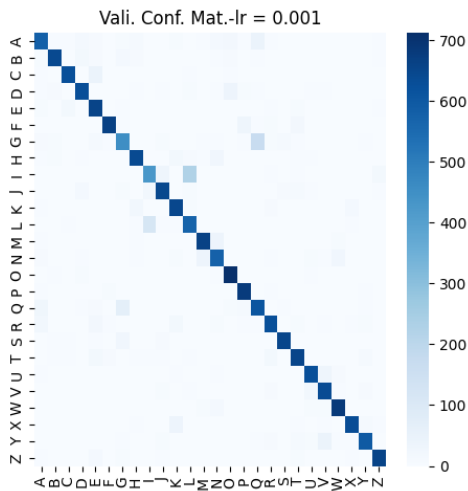
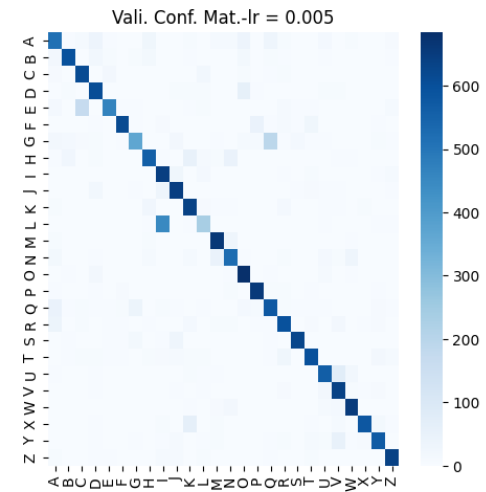
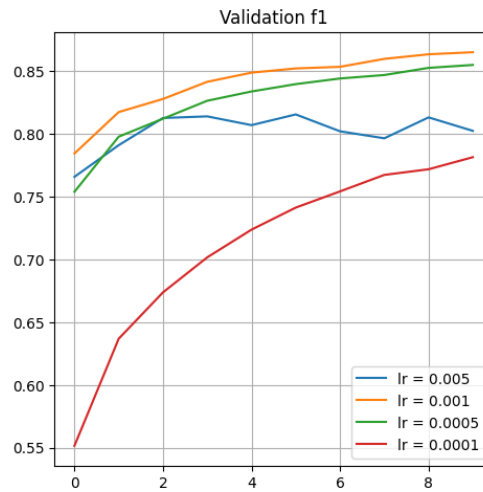
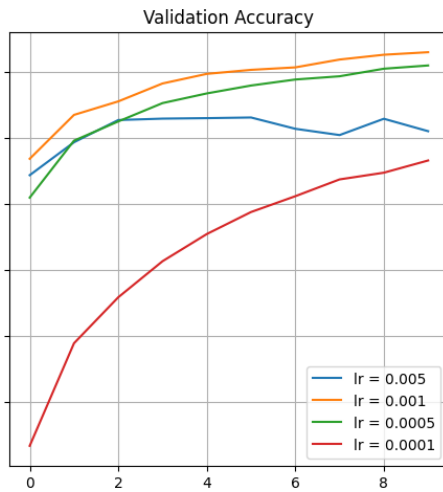
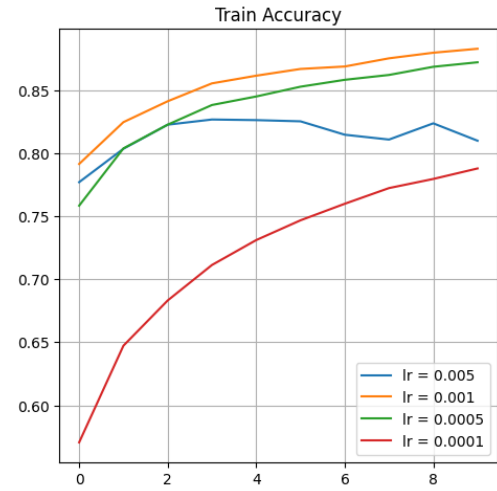
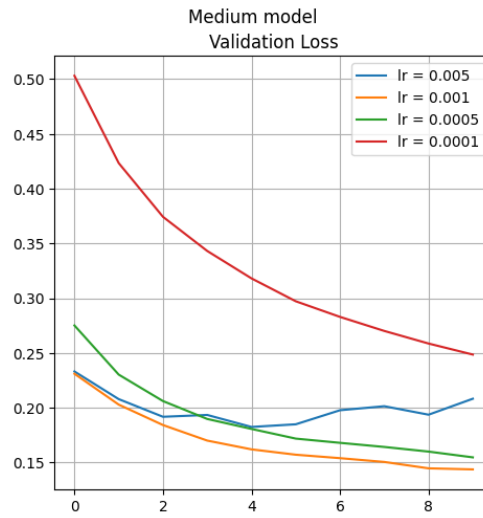
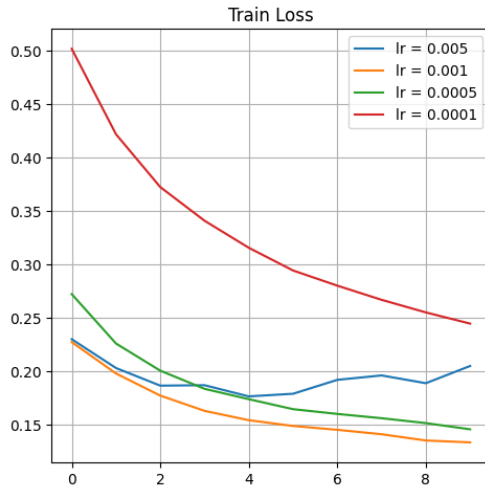
Abdur Rafi

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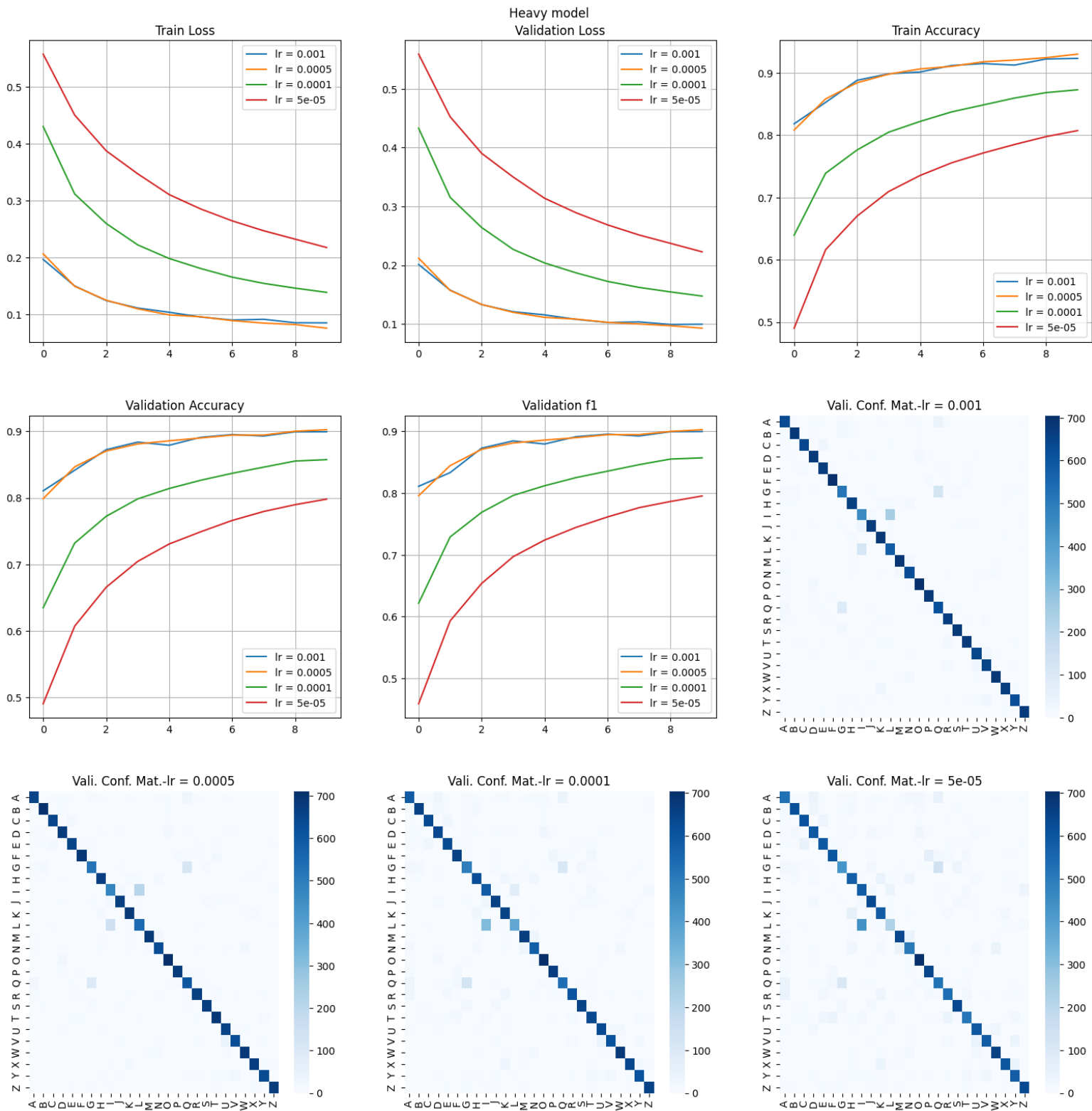
Model Architecture : [784, 32, 26], #params = 25978



Model Architecture : [784,128,64,32,26], #params = 111674



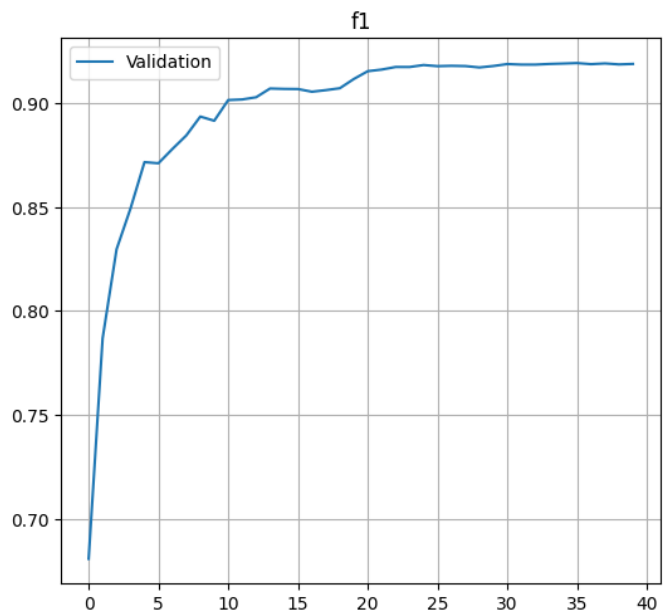
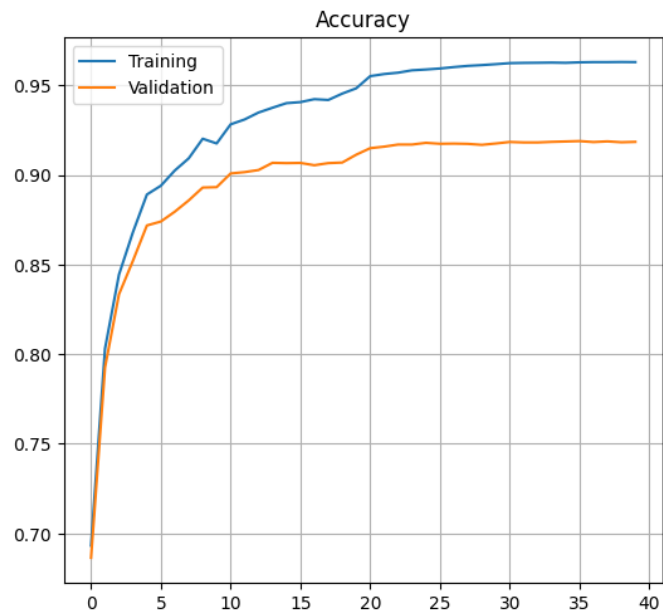
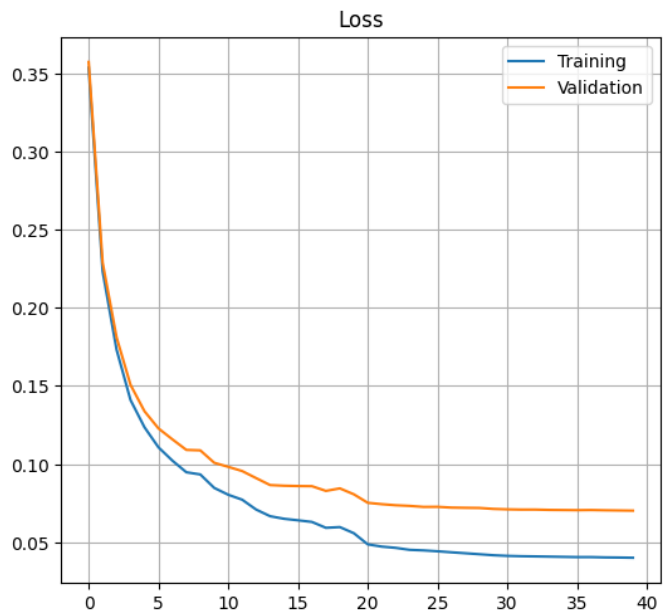
Model Architecture : [784,512,256,128,64,32,26], #params = 577338

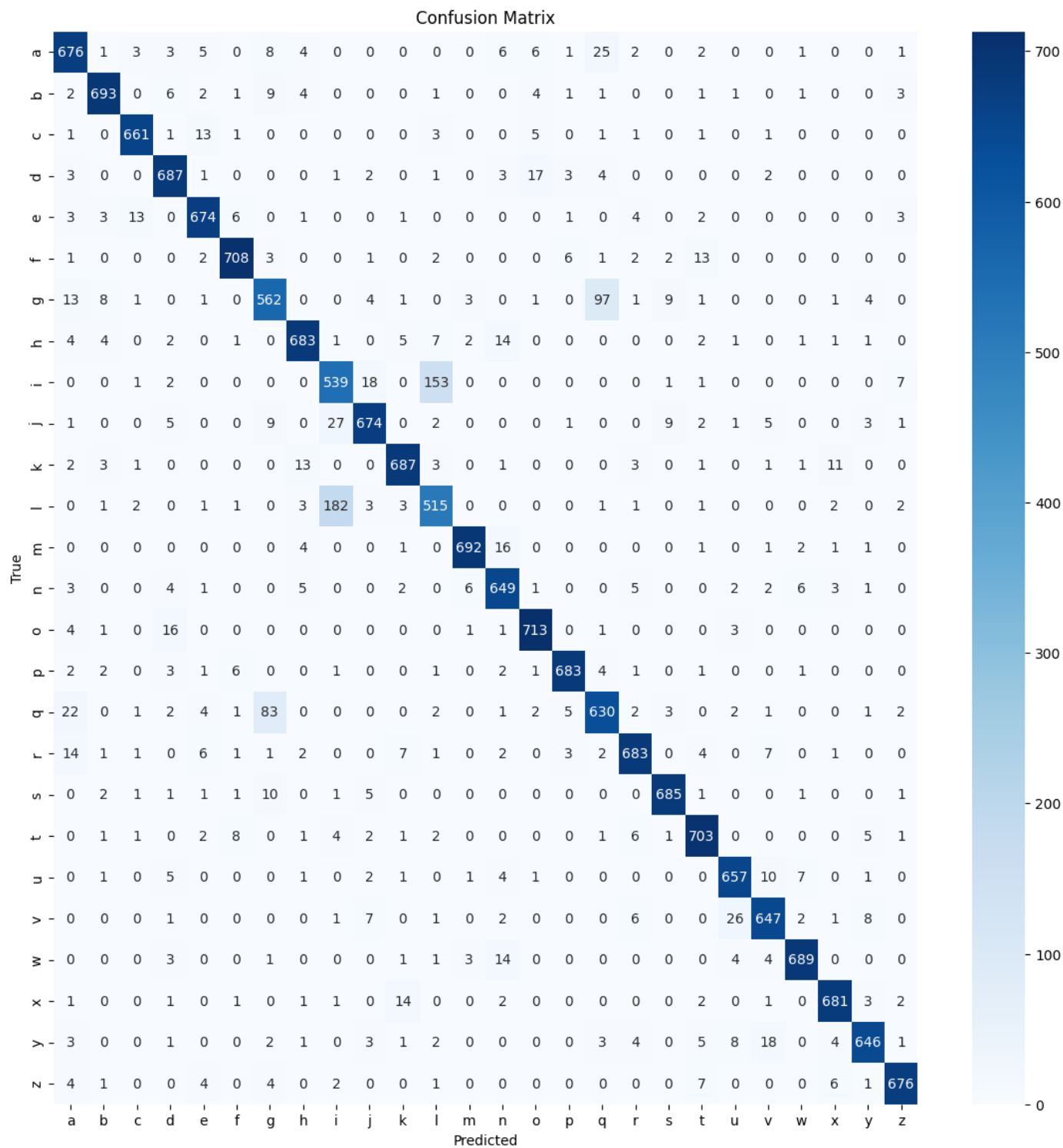


# Best Performing Model

Model Architecture : [784, 1024, 256, 128, 64, 32, 26], #params = 1110330

Best Model





Test accuracy: 0.920625  
Test macro F1: 0.920622151867392