Assignment on:
Feed-forward Neural Network

Bangladesh University of Engineering and Technology

Course: CSE 472 (Machine Learning Sessional)
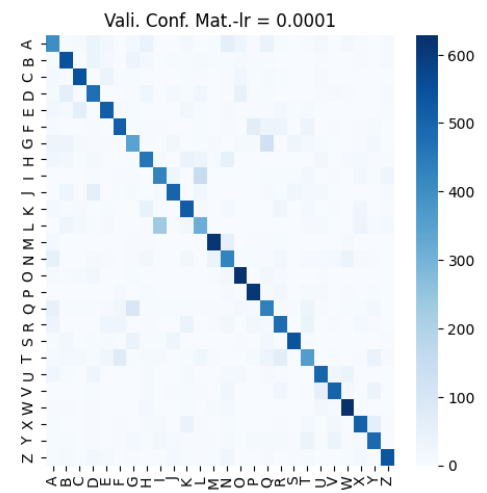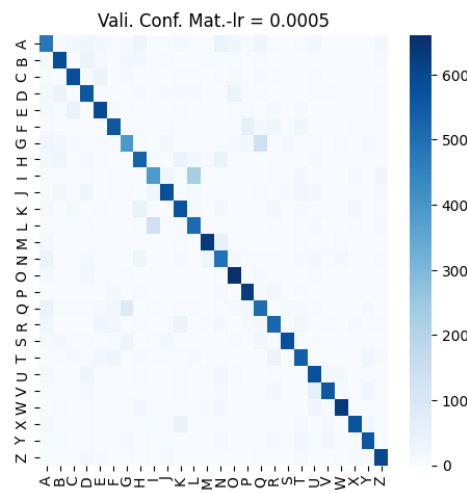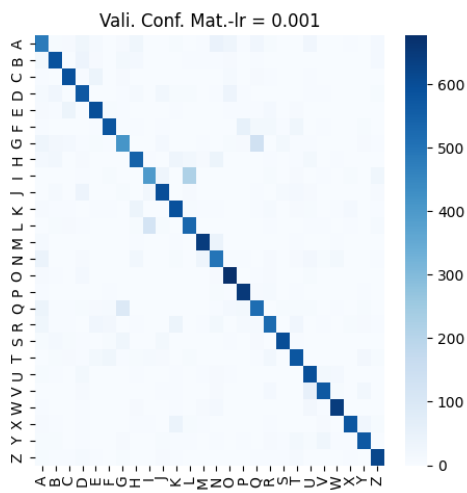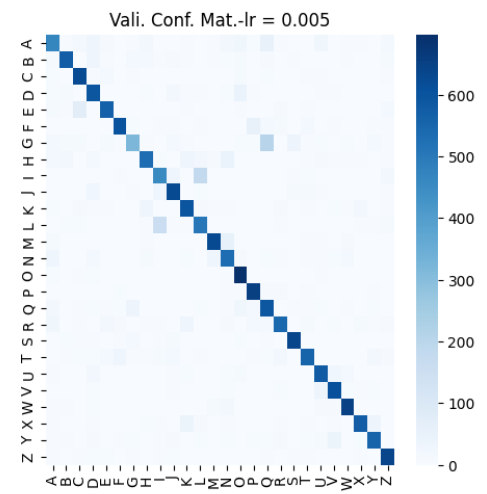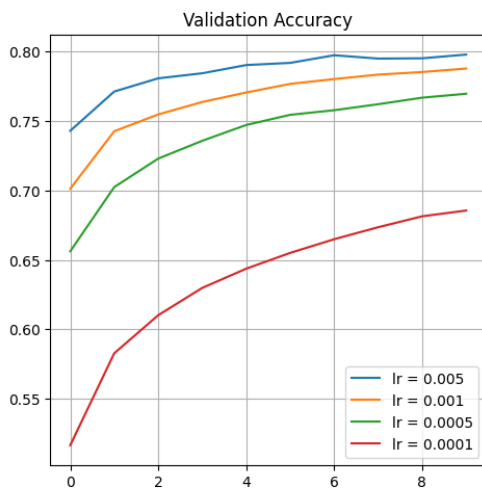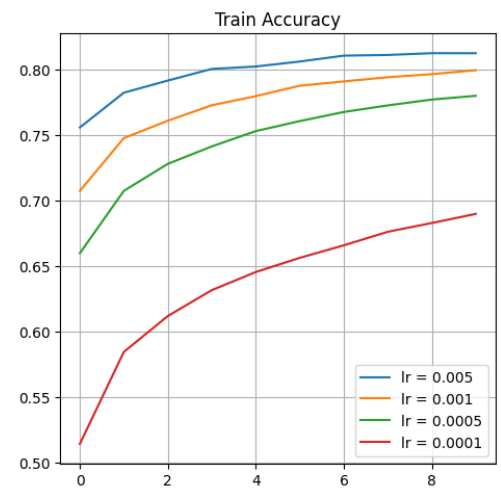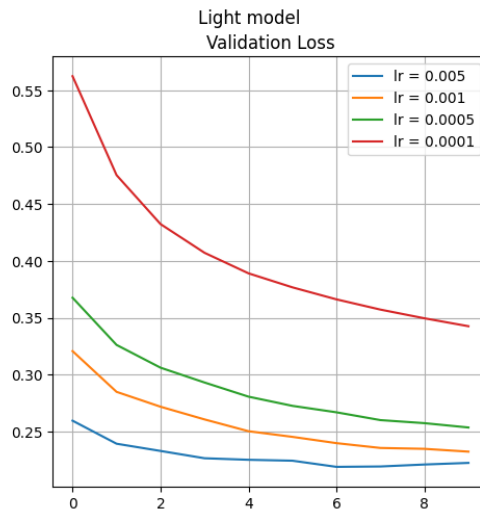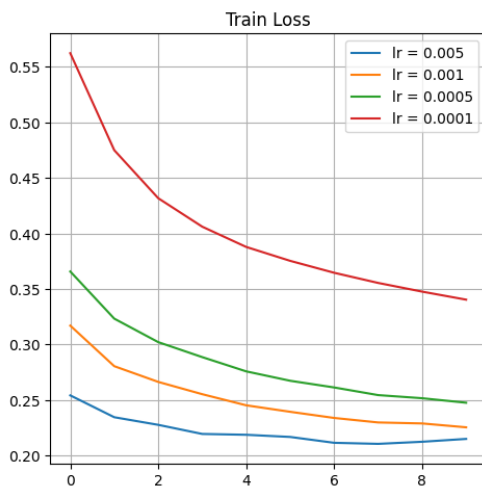**Date of Submission:** 03.01.2024

Submitted by:
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1805008

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

Light model

Train Loss

Validation Loss

Train Accuracy

Validation Accuracy

Validation f1

Vali. Conf. Mat.-lr = 0.005

Vali. Conf. Mat.-lr = 0.001

Vali. Conf. Mat.-lr = 0.0005

Vali. Conf. Mat.-lr = 0.0001
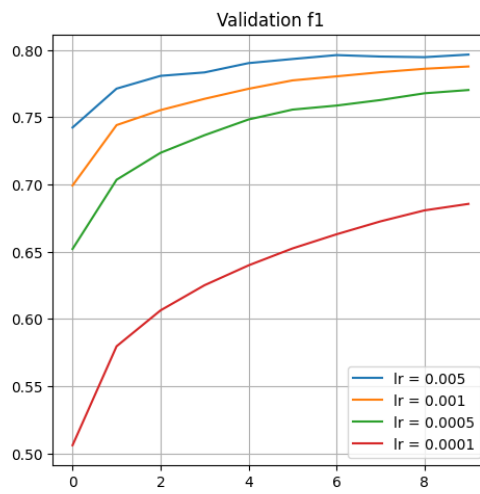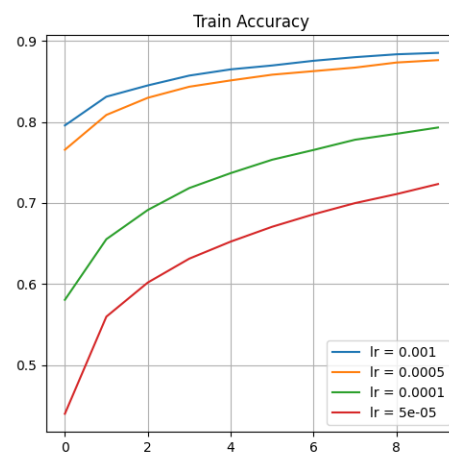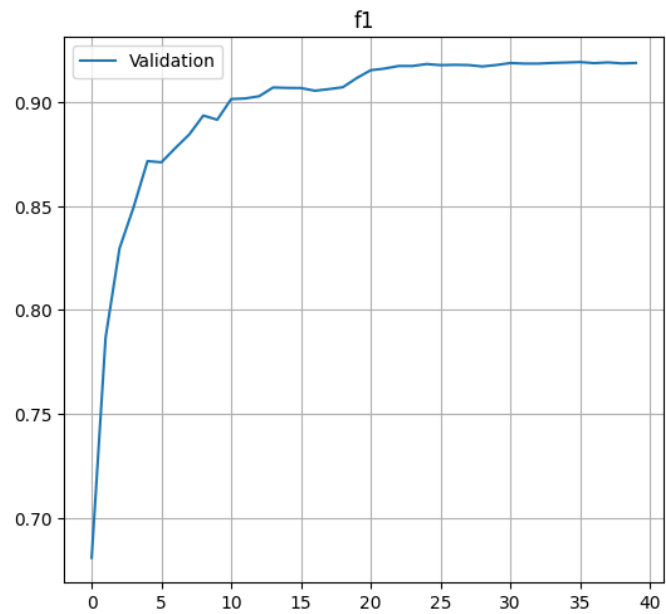
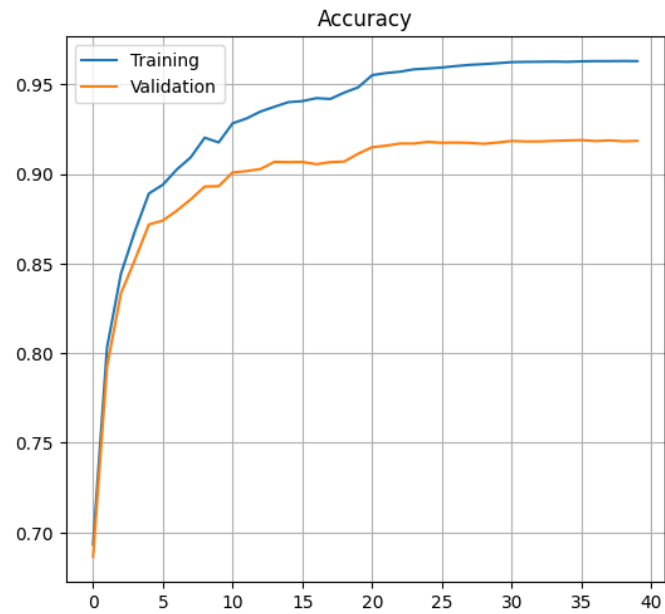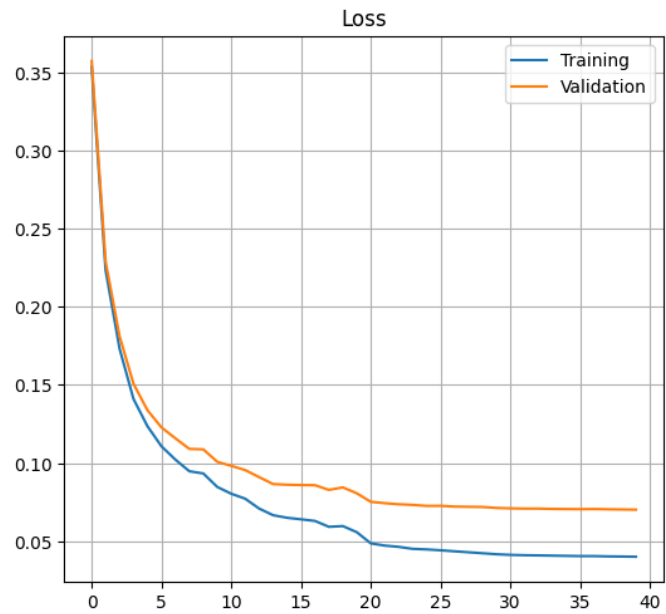# Model Architecture : [784,128,64,32,26], #params = 111674
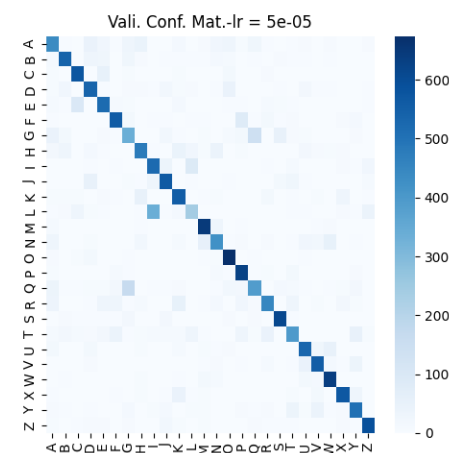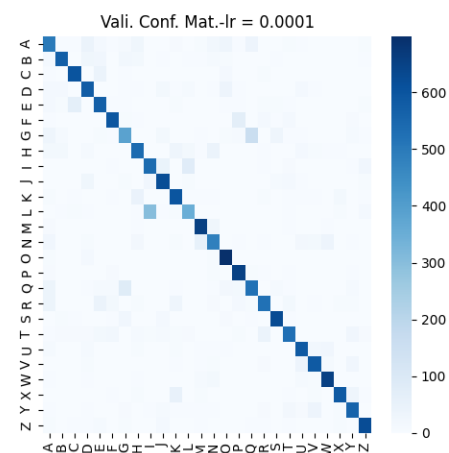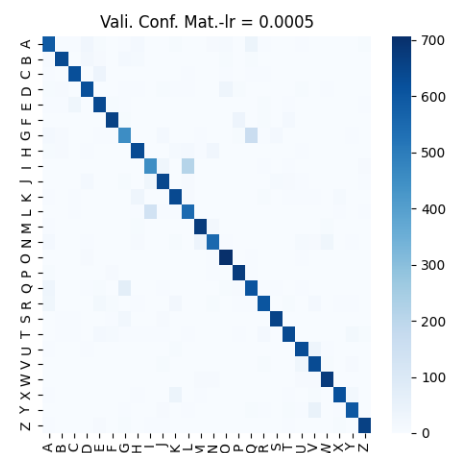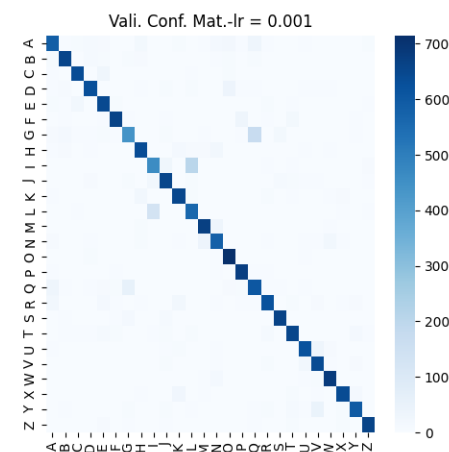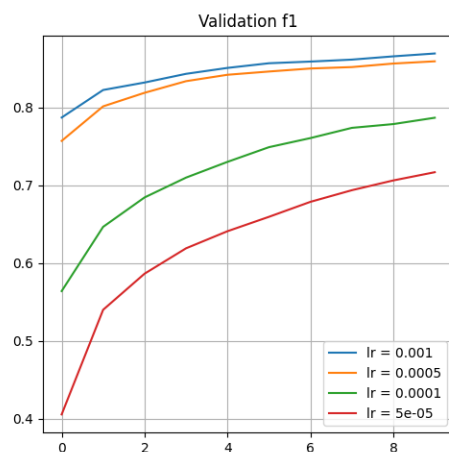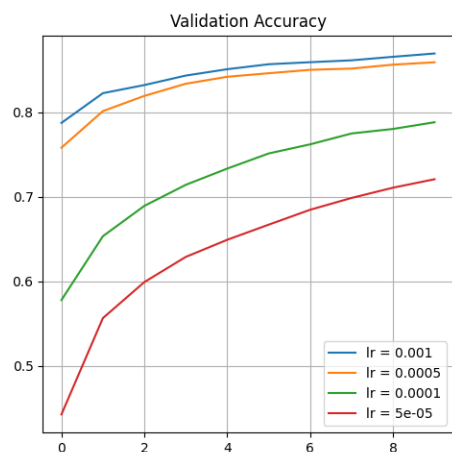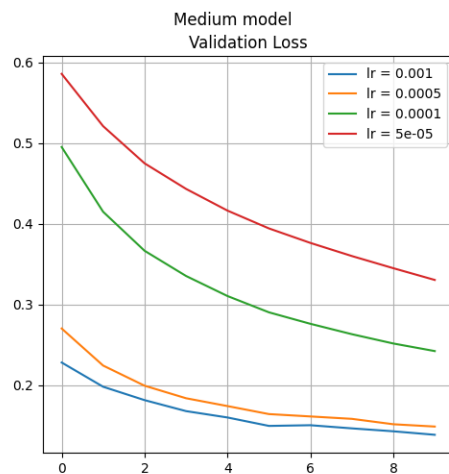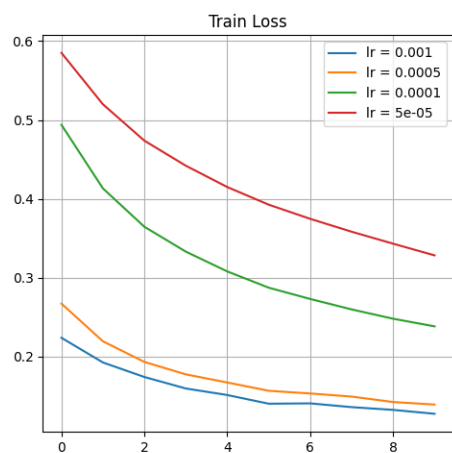
Model Architecture : [784,512,256,128,64,32,26], #params = 577338
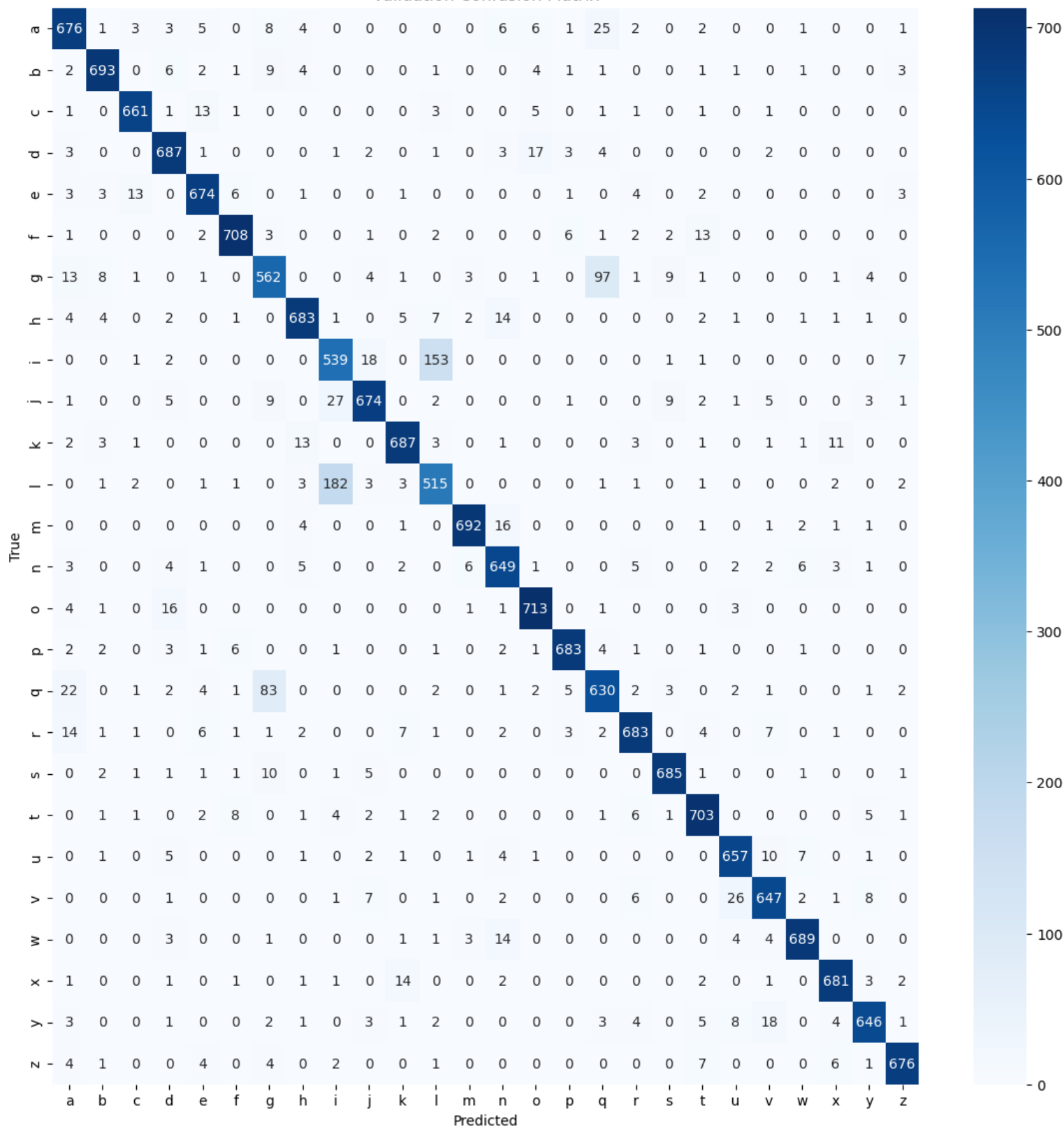
Heavy model
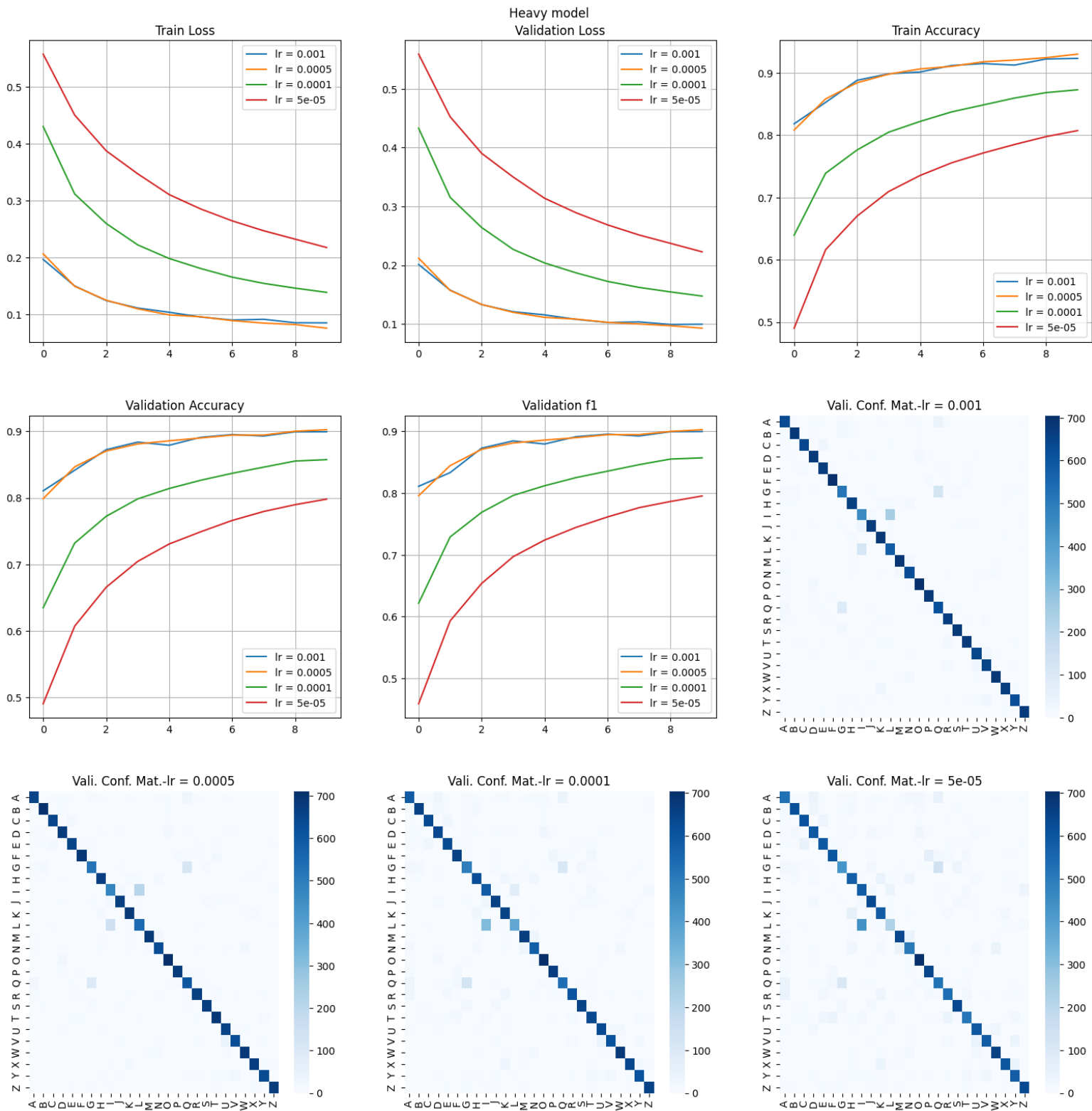
Best Performing Model

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

Best Model

Validation Confusion Matrix

Test Set Performance
Test Accuracy: 0.920625
Test Macro F1: 0.920622151867392

Test Set Confusion Matrix