ELL 409 3

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1 Random Forest

1.1 Training data

- Accuracy = 0.967313074770092

- F1 Score = 0.9562831134092753

- Number of missclassifed instances= 157

Figure 1: Missclassified Traning instances

1.2   Validation Data

- Tree Max-depth =5

- number of trees=7

- Maximum Accuracy = 0.963125

- Maximum F1 Score = 0.9507098769783275
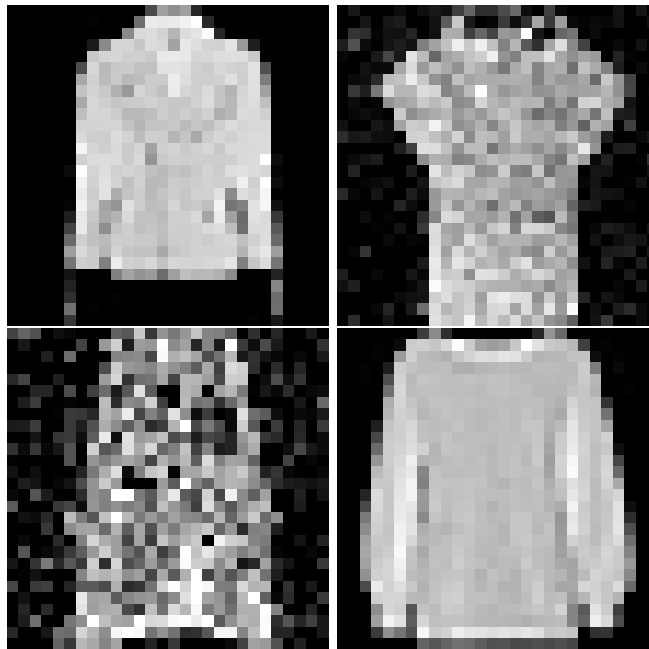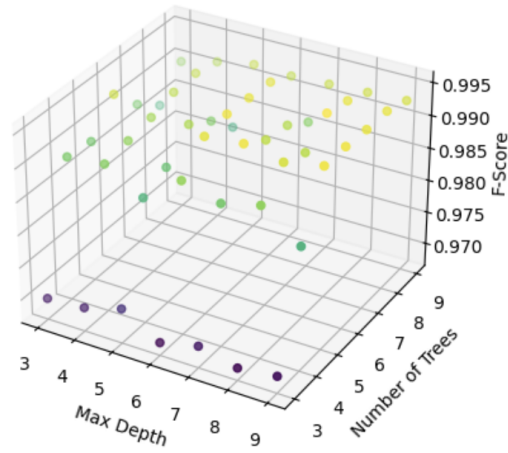
- Number of missclassifed instances=153

Figure 2: Missclassified validation instances

2 Ada Boost

2.1 Training data

- Accuracy = 0.9561175529788085

- F1 Score = 0.9414822706145782
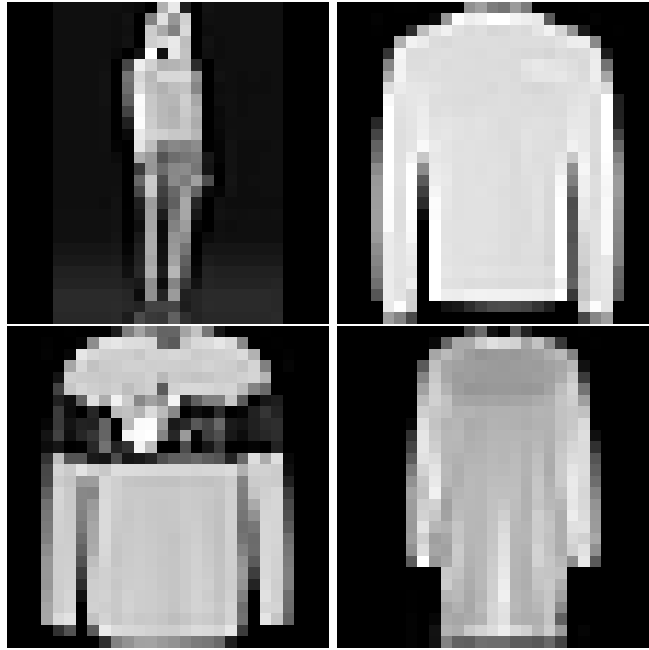
- Number of missclassifed instances=28

Figure 3: Missclassified Traning instances

2.2 Validation Data

- number of trees=27

- Maximum Accuracy = 0.9527083333333334

- Maximum F1 Score = 0.9370318091652351
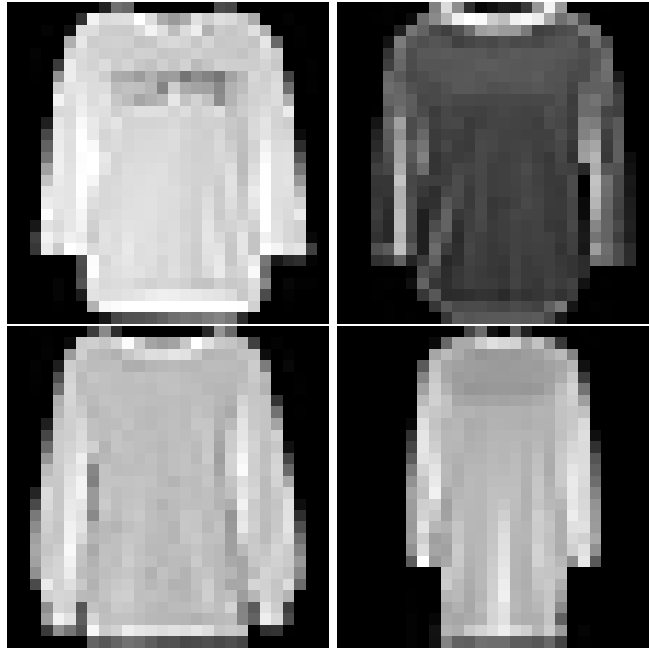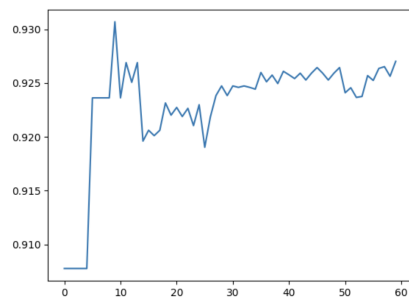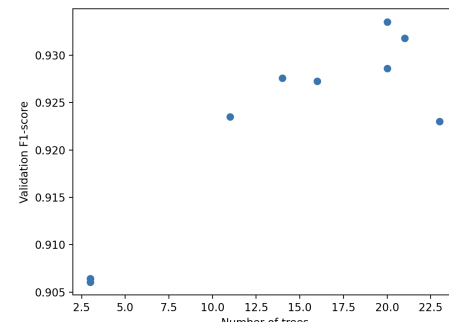
- Number of missclassifed instances=21

Figure 4: Missclassified validation instances

(a) Grid Search

(b) Randomized Search