

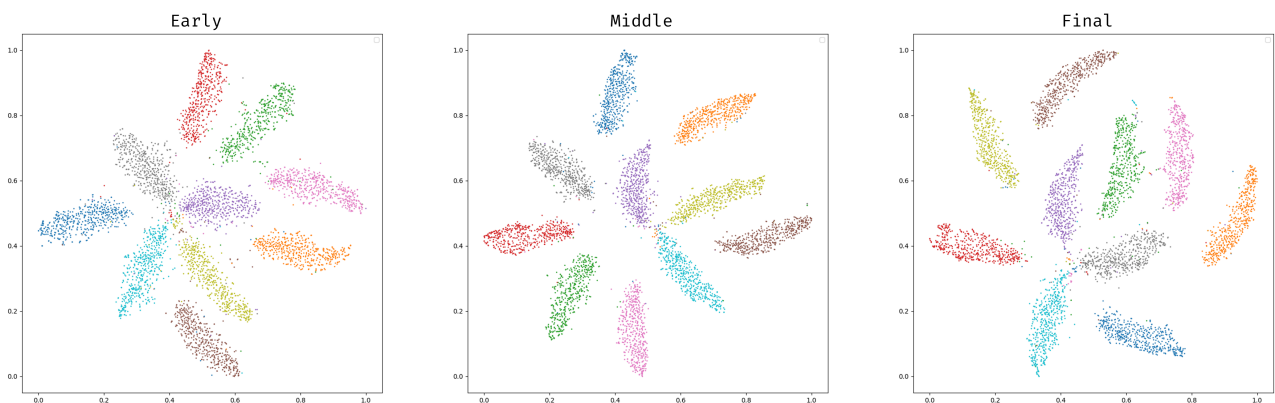
# Report

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I decided to update my model using approach of DANN with 234000 iterations. In the following questions, I decided to plot feature distribution when the training progress through 10%, 50% and 99%.

## Problem 1 Visualize distribution of features across different classes

Dots with different color means embedding vector from different classes. Compare with different stages, I think that the feature distribution is pretty good since middle state. The instances in same class are close enough, and the instances in different class are far from each other.



## Problem 2 Visualize distribution of features across different domain

Dot with red color means embedding vector from the source domain, and blues are corresponding to the target domain.

Seems that the feature distribution of source domain and target domain are much more similar to each other, given enough updating with domain adversarial loss. In contrast, the blue dots in early state are really diverse, they probably across the decision boundary, being classified as other classes.

