

Generative Mixture of Networks

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I present a generative model by training deep architecture. Our model starts with dividing the input data into k clusters and feeding each of them into a separate network. So, there is a big network (hyper-Network) which consists of k sub-networks. We propose an algorithm that trains the networks, jointly with updating the clusters of the training set by non-parametric likelihood estimation. Given a random vector at the input, the goal of training each sub-network is to generate samples which have close distribution to the underlying distribution of its assigned training set. For example, when the training set is face images or handwritten digits, this model can generate realistic new face images or realistic handwritten digits.

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