UDEC used in a federated setting

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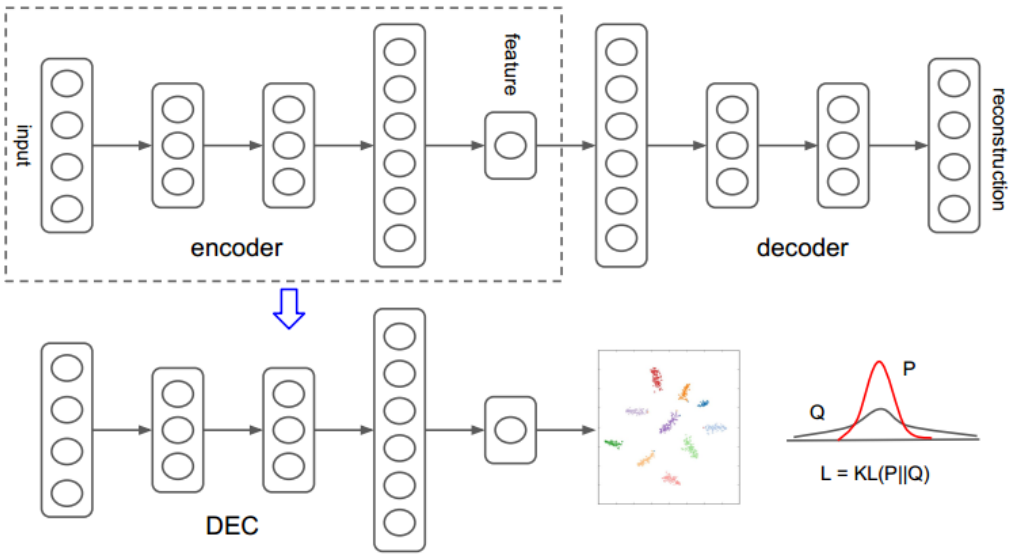
Unsupervised Deep Embedding for Clustering (UDEC)

Aims:[2]

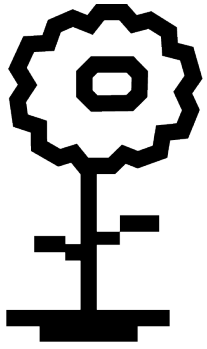
- learning feature representations of data
- learning clustering assignments

Methods:

- denoising autoencoder
- a DNN optimized for the clustering objective



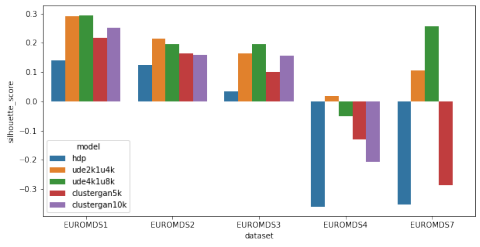
Federated Framework[1]



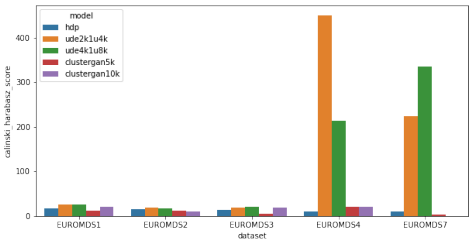
- FLOWER Framework is used for simulating a real federated setting, using FedAvg algorithm
- 8 equal clients contribute simultaneously to the training and the evaluation at every step
- clients are not able to see other clients' data
- aggregated metrics are collected to measure the performance

Objective Metrics for Clustering

Silhouette Score



Calinski Harabasz Score



Bibliografia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The End,
Thanks for the attention