Machine learning and deep learning approaches for multivariate time series prediction and anomaly detection

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Figure on the front: 2D-representation of different chaotic Mackey-Glass time series, found using the t-SNE algorithm. The individual colors represent a varying parameter in the Mackey-Glass equation.

Figure on the back: 2D-representation of the same Mackey-Glass time series using a temporal convolutional autoencoder (TCN-AE). This (unsupervised) algorithm is capable of learning an encoding which separates the considered time series fairly well.

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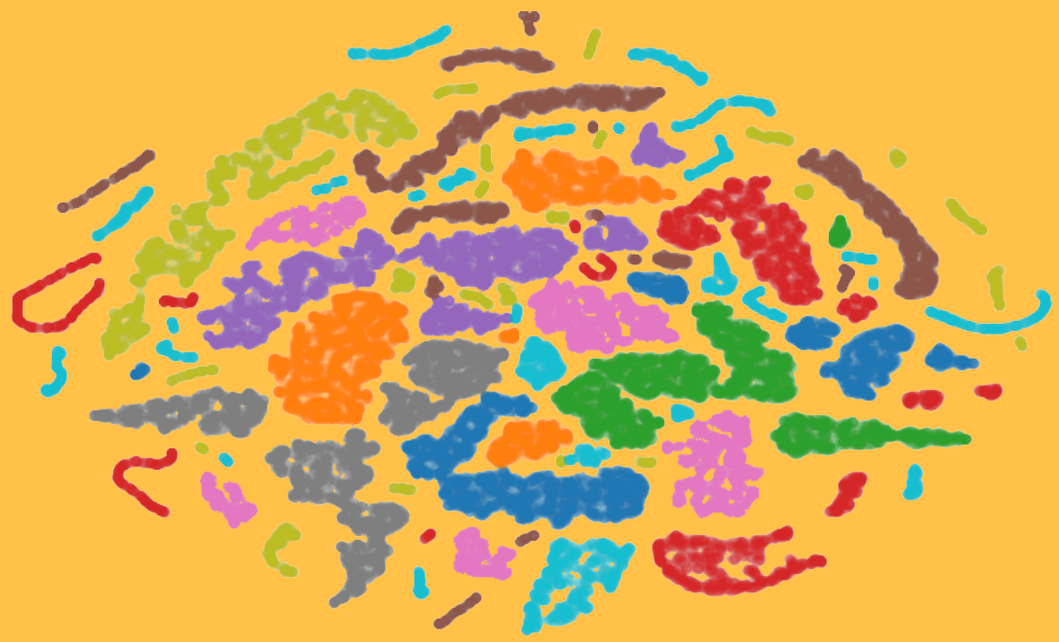

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