Generative ML for time series

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December 22, 2023

TODO: relate our work to TimeVQVAE, Neural Representation, Barlow,...

Our work in this thesis can be seen as a tangent of the paper "Vector Quantized Time Series Generation with a Bidirectional Prior Model" [1]. The TimeVQVAE model is a two staged process. For this part of the thesis we focused on the first stage of the model. Meaning that we did not fit a prior on the latent space, keeping it uniform. Further we simplified the model by not separating the high and low frequency components of the data.

We invesigated properties of the latent representations, and how they responded to the integration of the Barlow twins model.