

Unsupervised Learning of Disentangled and Interpretable Representations from Sequential Data

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Explainable Machine Learning

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- What is disentanglement (intuition)
- Why disentanglement
- Formal description of disentangled representations
- SequentialVAE
- Did they achieve disentanglement?
- Other approaches and challenges

What is disentanglement?

Intuition

- ...

Why learn disentangled representations?

Motivation

- ...

What are disentangled representations formally?

A field-trip to group theory

- ...

Did they achieve disentanglement

...

- With respect to a decomposition into two

- If we really think about it, it is hard for us to define what a disentangled representation should actually be
- Precise biases of what the latent space should be decomposed into can be helpful as well as biases towards the 'form' of these latent subspaces