







Approximated Bilinear Modules for Temporal Modeling

Xinqi Zhu, Chang Xu, Langwen Hui, Cewu Lu, D. Tao · Computer Science · IEEE/CVF International Conference on Computer... · 1 October 2019

TLDR It is shown how two-layer subnets in CNNs can be converted to temporal bilinear modules by adding an auxiliary-branch, and snippet sampling and shifting inference are introduced to boost sparse-frame video classification performance. Expand 66 10) (PDF) * ☑ View on IEEE ■ Save ♣ Alert 66 Cite ♠ Research Feed

Learning Disentangled Representations with Latent Variation Predictability

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Xinqi Zhu, Chang Xu, D. Tao · Computer Science · ECCV · 25 July 2020

TLDR The proposed variation predictability is a general constraint that is applicable to the VAE and GAN frameworks for boosting disentangled latent representations and correlates well with existing ground-truth-required metrics and the proposed algorithm is effective for disentanglement learning. Expand

66 5 (PDF) → Note in the Note of the Second PDF on arXiv Save Alert 66 Cite in Research Feed

Where and What? Examining Interpretable Disentangled Representations

Xinqi Zhu, Chang Xu, D. Tao Computer Science ArXiv 7 April 2021

TLDR On various datasets, the authors' models can learn high-quality disentangled representations without supervision, showing the proposed modeling of interpretability is an effective proxy for achieving unsupervised disentanglement. Expand

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Commutative Lie Group VAE for Disentanglement Learning

Xingi Zhu, Chang Xu, D. Tao . Computer Science . ICML . 7 June 2021

TLDR This work proposes to encode the data variations with groups, a structure that not only can equivariantly represent variations, but can also be adaptively optimized to preserve the properties of data variations. Expand

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