

Title: Self-supervised learning for video correspondence flow

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Abstract:

Correspondence matching is crucial for applications such as depth estimation, optical flow, segmentation and tracking, and 3D reconstruction. However, it is not trivial to train models for correspondence matching, as well as manual annotation could be massively expensive. For example, even though videos are appealing as a data source due to its intrinsic spatio-temporal coherence and almost infinite supply (social networks, YouTube, online streams, etc.), manual annotation on videos is almost prohibitable. One alternative for using labelled data is using self-supervised learning to train a model. So, the authors focused on using self-supervised learning for correspondence flow. The model used is trained recursively on videos over long temporal windows with scheduled sampling and forward-backward consistency.

Why did I choose this paper?

- Self-supervised learning
- Videos as a data source for training the model

Reference:

Lai, Z., Xie, W.: Self-supervised learning for video correspondence flow. In: British Machine Vision Conference (2019). url: <https://arxiv.org/abs/1905.00875>.