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VideoLSTM Convolves, Attends and Flows for Action Recognition

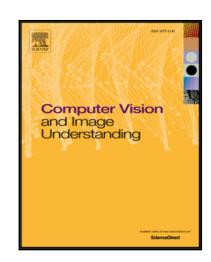
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Highlights

- To exploit both the spatial and temporal correlations in a video, we hardwire convolutions in the soft-Attention LSTM architecture.
- We introduce motion-based attention which guides better the attention towards the relevant spatial-temporal locations of the actions.
- We demonstrate how the attention generated from our VideoLSTM can be used for action localization by relying on the action class label only.
- We show the theoretical as well as practical merits of our VideoLSTM against other LSTM architectures for action classification and localization.

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