MULTIPLE PATH SEARCH FOR ACTION TUBE DETECTION IN VIDEOS
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Problem

We address the problem of localizing and classifying actions in video.

- Action path generation using dynamic programming approach still inefficient.
- Inaccurate object localization in the existing CNN-based methods.

Contributions

3. An iterative video localization refinement scheme for refine inaccurate bounding boxes.

Video Localization Refinement

- Simple
- Iterative
- Learning-free
- CNN-compatible
- Efficient
- Less parameters

System Diagram

Multiple Path Search

Forward-Message-Passing

First Iteration

Second Iteration

Convergence

Store K largest paths instead only one with the maximum score.

Backward-Path-Tracing

Trace back based on the accumulated score, in this step we have more option to choose a path.

Experimental Result