Proposal of Final Project

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Recognizing human actions is one of most popular computer vision method which finds mutiple applications in lots of fileds such as video surveillance, customer attributes, shoopping behavior analysis.

In our final project, we consider the automated recognition of human actions in some videos. We proposed to build up a 3D CNN model for action recognition. In order to capture motion information from multiple adjacent frames, we proposed to extract features from both spatial and temporal dimensions. Based on this feature extractor, a 3D convolutional neural network will be built up. This CNN will generates multiple channels of information and performs convolution and subsampling separately. The final feature representation is obtained by combining information from all channels.