Term Paper

For Research Directions

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by

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Dr. Hall

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Bibliography

Baudi, P. and Pichl, J. Sentence Pair Scoring : Towards Unified Framework. (C).

Crowe, C. (2018). Initial Related Work. pages 1–4.

Donahue, J., Hendricks, L. A., Guadarrama, S., Rohrbach, M., Venugopalan, S., Saenko, K., Darrell, T., Austin, U. T., Lowell, U., and Berkeley, U. C. Long-term Recurrent Convolutional Networks for Visual Recognition and Description.

Enerative, F. O. R. G., Of, M. O., and Ideos, N. A. V. (2014). V (l) m : a b f g m n v. pages 1–15.

Fan, Y., Lu, X., Li, D., and Liu, Y. (2016). Video-Based Emotion Recognition using CNN-RNN and C3D Hybrid Networks. (November).

Ghosh, A. and Veale, T. (2016). Fracking Sarcasm using Neural Network. pages 161–169.

Graves, A. Generating Sequences With Recurrent Neural Networks. pages 1–43.

Graves, A. (2014). Towards End-to-End Speech Recognition with Recurrent Neural Networks. 32.

Hurri, J. (2003). Simple-Cell-Like Receptive Fields Maximize Temporal. 691(3):663–691.

Ji, S. and Yu, K. (2010). 3D Convolutional Neural Networks for Human Action Recognition.

Karpathy, A., Toderici, G., Shetty, S., Leung, T., Sukthankar, R., and Fei-fei, L. (2015). Large-scale Video Classification with Convolutional Neural Networks Presenter : Esha Uboweja Problem Classification of videos in sports datasets. (June 2014).

Lan, Z., Lin, M., Li, X., Hauptmann, A. G., and Raj, B. Beyond Gaussian Pyramid : Multi-skip Feature Stacking for Action Recognition.

Le, Q. V., Zou, W. Y., Yeung, S. Y., and Ng, A. Y. Learning hierarchical invariant spatio-temporal features for action recognition with independent subspace analysis.

Lee, J. Y. and Dernoncourt, F. (2016). Sequential Short-Text Classification with Recurrent and Convolutional Neural Networks.

M, N. E. N. E. and Yuille, A. (2015). D c m r n n (-rnn). 1090(2014):1–17.

Merri, B. V. and Fellow, C. S. (2014). Learning Phrase Representations using RNN Encoder – Decoder for Statistical Machine Translation. pages 1724–1734.

Michalski, V. and Memisevic, R. Modeling Deep Temporal Dependencies with Recurrent " Grammar Cells ". pages 1–9.

Mobahi, H., Weston, J., America, N. E. C. L., and Way, I. (1996). Deep Learning from Temporal Coherence in Video.

Sainath, T. N., Vinyals, O., Senior, A., and York, N. No Title. pages 1–5.

Simonyan, K. Two-Stream Convolutional Networks for Action Recognition in Videos. pages 1–9.

Simonyan, K. and Zisserman, A. (2015). Very Deep Convolutional Networks for Large-Scale Image Recognition. *International Conference on Learning Representations (ICRL)*, pages 1–14.

Soomro, K., Zamir, A. R., Shah, M., and Recognition, A. (2012). UCF101 : A Dataset of 101 Human Actions Classes From Videos in The Wild. (November).

Srivastava, N. (2014). Unsupervised Learning of Video Representations using LSTMs.

Srivastava, N. (2015). Unsupervised Learning of Video Representations using LSTMs. 37.

Susskind, J., Memisevic, R., Hinton, G., and Pollefeys, M. Modeling the joint density of two images under a variety of transformations.

Sutskever, I. Sequence to Sequence Learning with Neural Networks. pages 1–9.

Understanding, R. N. N. C.-f. L. DiSAN: Directional Self-Attention Network for RNN/CNN-Free Language Understanding.

Vosoughi, S. and Roy, D. (2016). Tweet2Vec : Learning Tweet Embeddings Using. pages 16–19.

Wang, J., Yang, Y., Mao, J., Huang, Z., Huang, C., and Xu, W. CNN-RNN : A Unified Framework for Multi-label Image Classification. pages 2285–2294.

Wang, J., Yu, L.-c., Lai, K. R., and Zhang, X. (2016). Dimensional Sentiment Analysis Using a Regional CNN-LSTM Model. pages 225–230.

Yin, W., Kann, K., and Yu, M. (2016). Comparative Study of CNN and RNN for Natural Language Processing.

Yin, W. and Sch, H. ABCNN: Attention-Based Convolutional Neural Network for Modeling Sentence Pairs.

Zaremba, W. and Com, V. G. (2013). arXiv : 1409 . 2329v3 [cs . NE] 3 Nov 2014.