



THE UNIVERSITY OF  
CHICAGO

Department of Statistics

MASTER'S THESIS PRESENTATION

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Hierarchical Multichannel Convolutional Attention For Document  
Classification

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Jones 304, 5747 S. Ellis Avenue

#### ABSTRACT

Transformer network which was suggested in “Attention is All You Need” has shown that self-attention mechanisms can be used instead of Recurrent Neural Network to decrease training time without deteriorating a model performance. I suggest combining self-attention with convolutional neural network and apply a hierarchical network to create a new model for document classification which is both fast to train and highly accurate – I name the model “Hierarchical Multichannel Convolutional Attention Networks.” I showed the effectiveness of the model by showing twice as fast to train relative to the current state-of-art for document classification task while maintaining the performance.