

# **3/18 Paper Intro**

## **+ Paper Report Questions**

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March 17, 2020

# Outline

1. Mogrify LSTM
2. SBERT-WK
3. Generalization through Memorization: Nearest Neighbor Language Models
4. Differentiable Reasoning over a Virtual Knowledge Base

## MOGRIFIER LSTM

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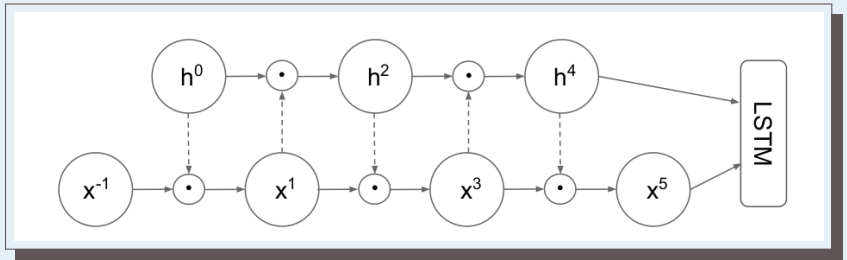
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# Mogrify LSTM - Motivation

1. Improve Generalization ability of Language Model
2. Amplify salient and attenuate nuisance features in the input embeddings
3. Context-free representation is a bottleneck in LM
4. conditioning the input embedding on the recurrent state will improve performance.

# Mogrify LSTM - Model



# Mogrify LSTM - partial Experiments

# Mogrify LSTM - Insight





# SBERT-WK - Motivation

# SBERT-WK - Model

# SBERT-WK - partial Experiments

# SBERT-WK - Insight



# knn-LMs - Motivation

# knn-LMs - Model

# knn-LMs - partial Experiments



# knn-LMs - Insight



# Recap

# Question 1

## Question 2

# Question 3

# Question 4