

Reading Comprehension

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Reading comprehension

- Inputs: passage of text, question
- Outputs: answer

In meteorology, precipitation is any product of the condensation of atmospheric water vapor that falls under **gravity**. The main forms of precipitation include drizzle, rain, sleet, snow, **graupel** and hail... Precipitation forms as smaller droplets coalesce via collision with other rain drops or ice crystals **within a cloud**. Short, intense periods of rain in scattered locations are called “showers”.

What causes precipitation to fall?

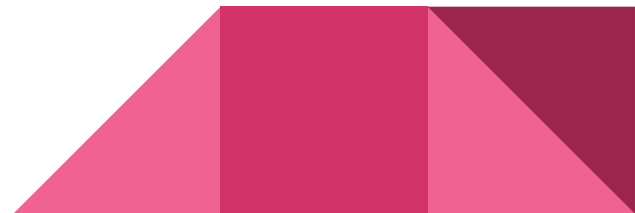
gravity

What is another main form of precipitation besides drizzle, rain, snow, sleet and hail?

graupel

Where do water droplets collide with ice crystals to form precipitation?

within a cloud



Dataset: SNLI(Precursor)

- Stanford Natural Language Inference.
- Not quite reading comprehension, but similar.
- Textual entailment: does one sentence entail another?

Released	# Questions	# Passages	Human	Random
EMNLP 2015	570k	570k	~90	33
Passage type	A “text” sentence and a “hypothesis” sentence			
Question type	One question: entails?			
Answer type	{entails, contradicts, neutral}			

Methodology

Non lexical features:

- (i) BLEU Score for entailment
- (ii) Absolute difference of word length
- (iii) Overlap between words

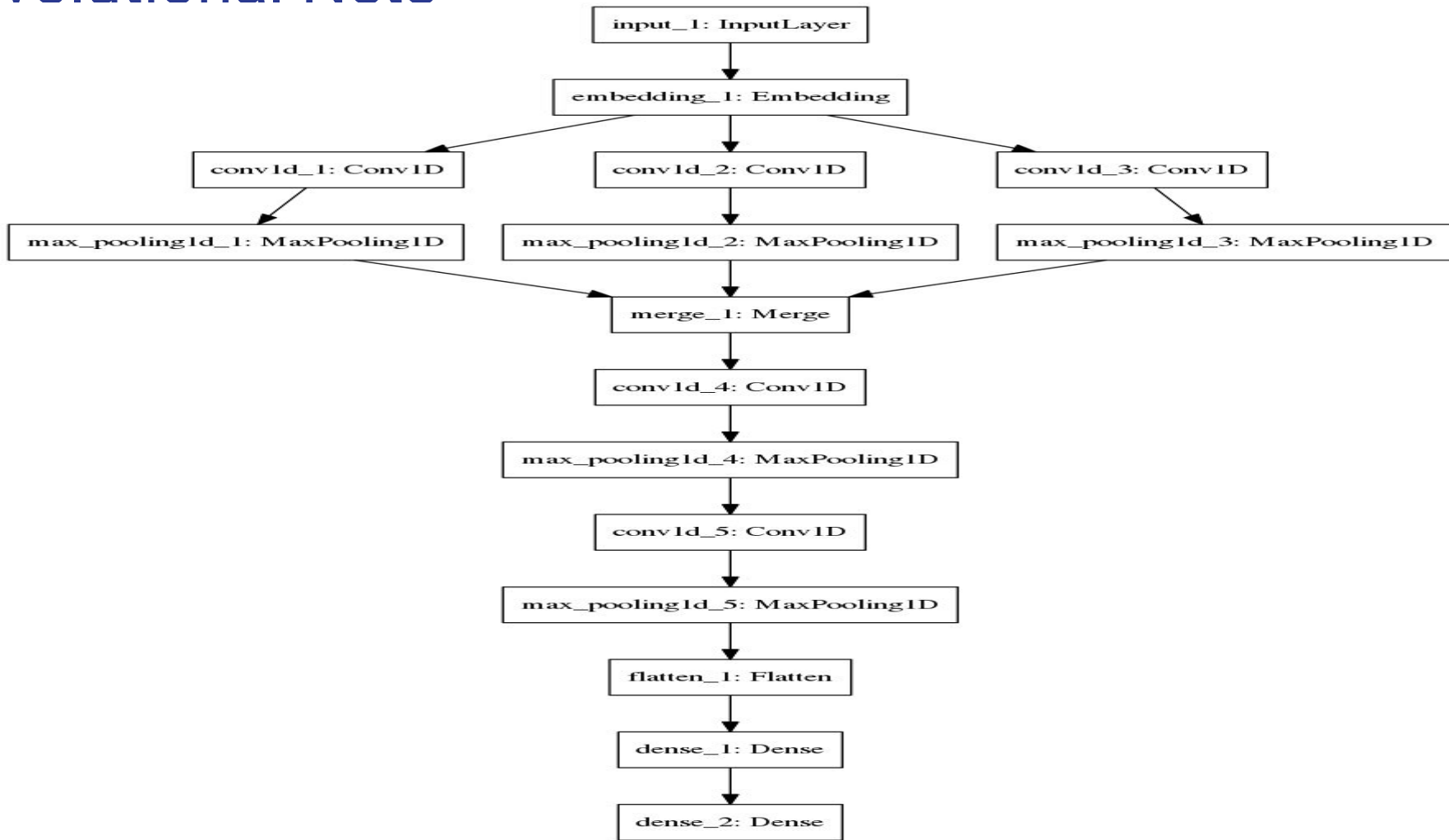
Logistic Regression using non lexical features:

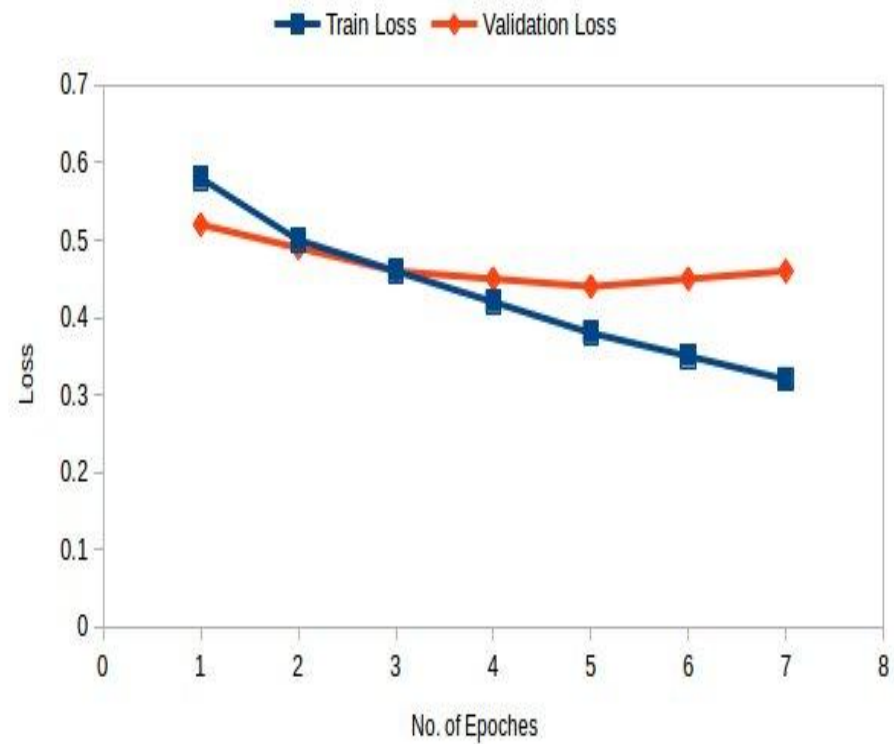
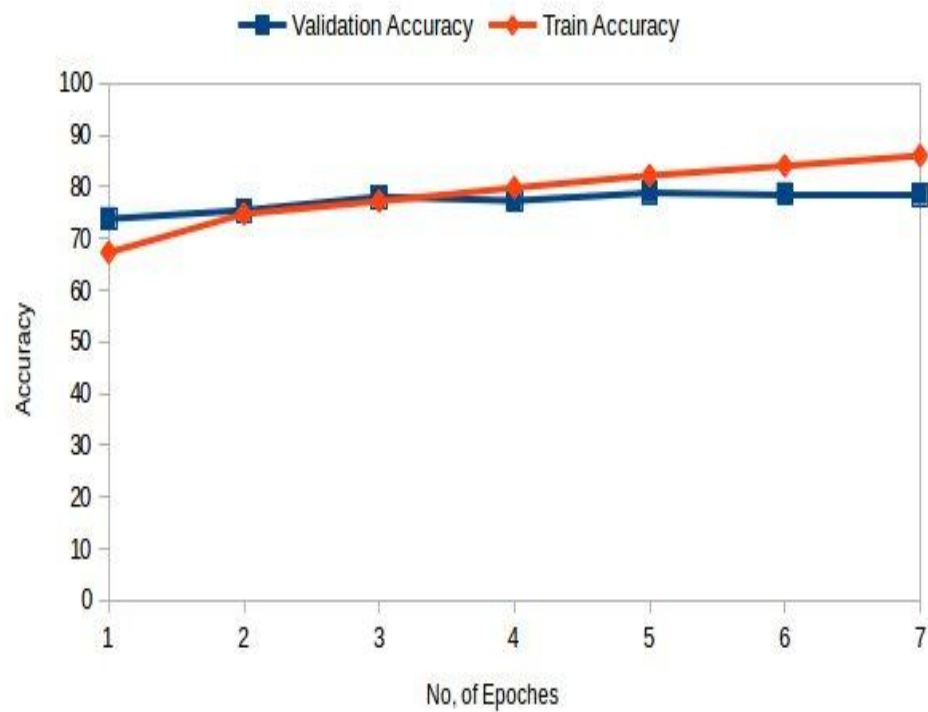
Distance Metric	Accuracy
L1	61.15%
L2	60.75%

Support Vector Machine using non lexical features:

Kernel	Accuracy
Linear	61.05%
Radial Basis	61.89%
Poly	54.33%

Convolutional Nets





Convolutional Network - Siamese

