RNN SLU Lab

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THEANO Installation

- Goto:

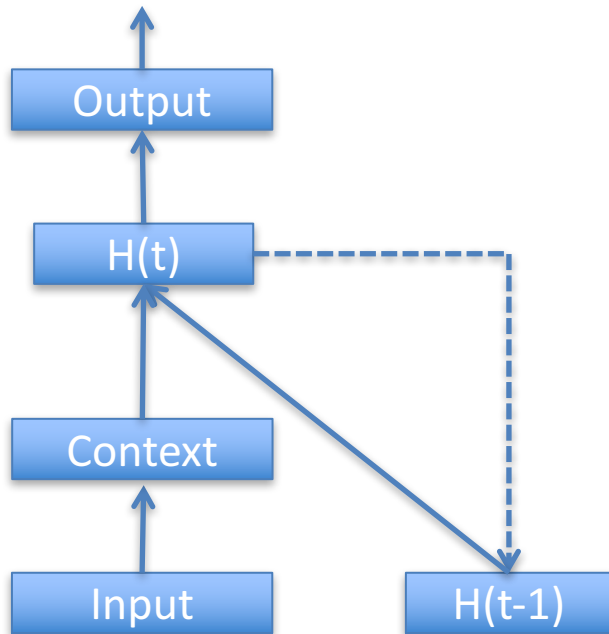 http://deeplearning.net/software/theano/install.html

- Follow the instructions

RNN SLU Tutorial

- You can find a tutorial on RNN SLU at:

http://deeplearning.net/tutorial/rnnslu.html

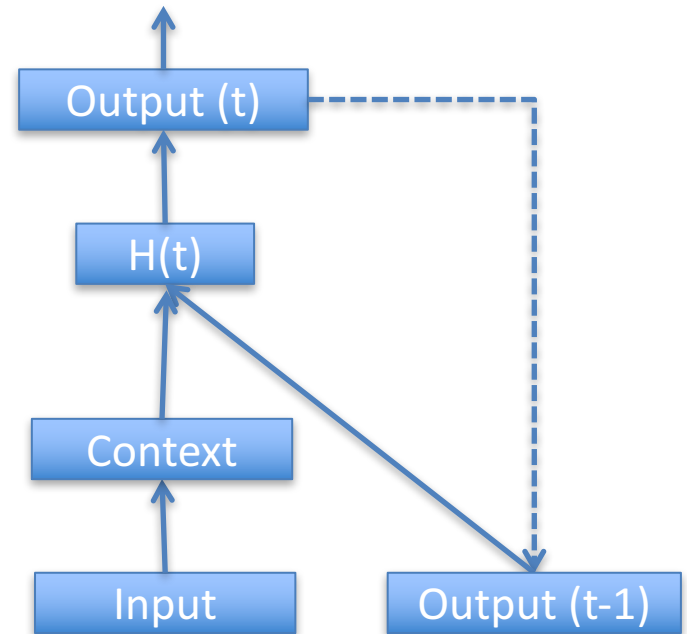# Lab Material

- Dowload lus_rnn_lab.tar.gz
- Extract:
  - tar -xfz lus_rnn_lab.tar.gz
- Set your PYTHONPATH
  - PYTHONPATH=/home/orkan/lus_rnn_lab

Training RNNs

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Training RNNs

- Requirements:
  - Training data
  - Validation (development) data
  - Word lexicon
  - Label lexicon
  - Config file

Training RNNs

- Training/Validation data:

  i   O
  want   O
  to   O
  go   O
  from   O
  boston   B-fromloc.city_name
  to   O
  atlanta   B-toloc.city_name
  on   O
  monday   B-depart_date.day_name

Training RNNs

- ## Word lexicon:
  'd   0

  'll   1

  'm   2

  're   3

  's   4

  't   5

  72s   6

  <UNK>   7

  DIGIT   8

Training RNNs

- Label lexicon:

B-aircraft_code   0

B-airline_code   1

B-airline_name   2

B-airport_code   3

B-airport_name   4

B-arrive_date.date_relative   5

B-arrive_date.day_name   6

B-arrive_date.day_number   7

B-arrive_date.month_name   8

Training RNNs

- Configuration File:

  lr: 0.1

  win: 7

  bs: 10

  nhidden: 100

  seed: 345

  emb_dimension: 100

  nepochs: 15