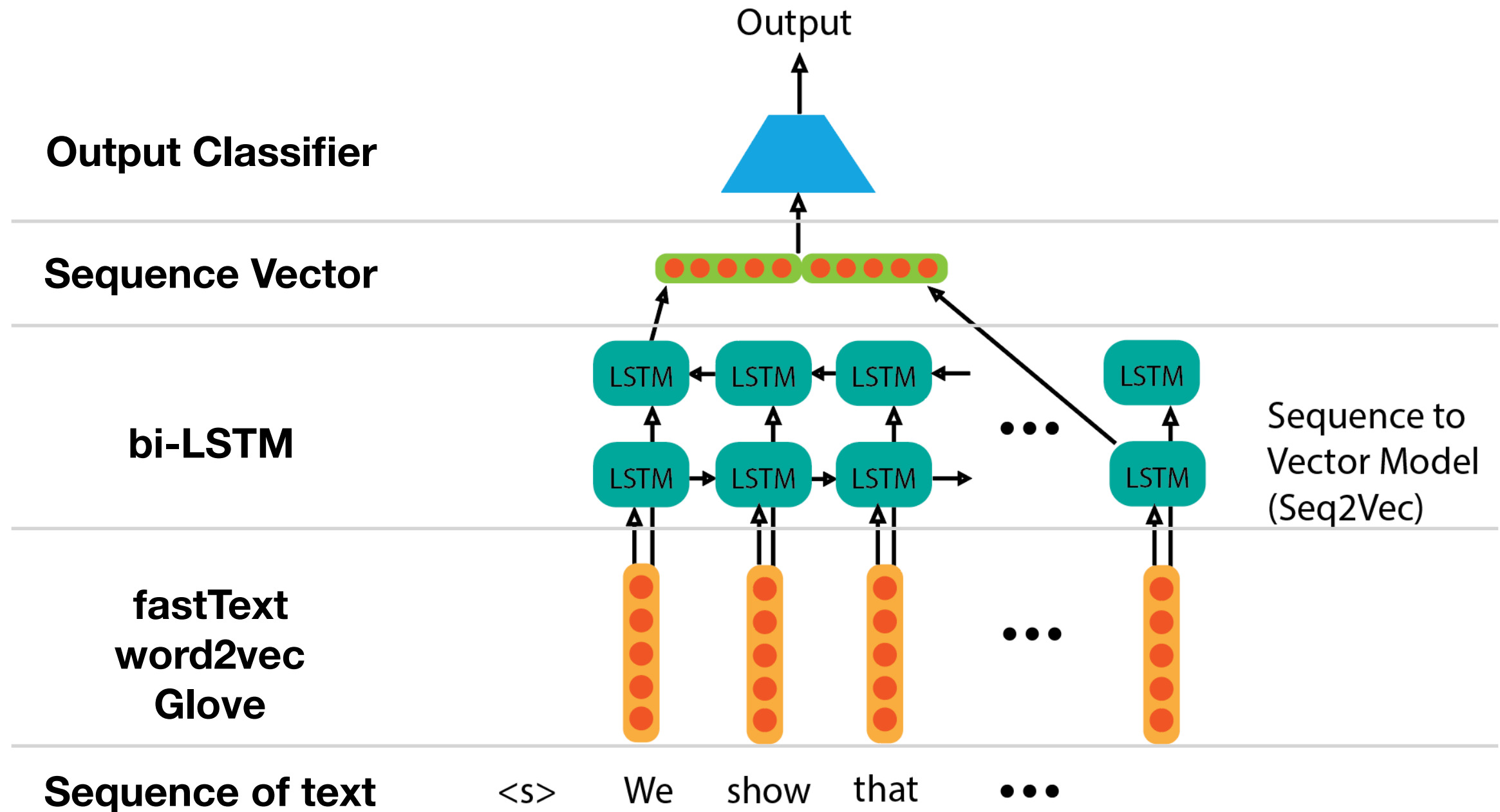# Introduction to AllenNLP

Titipat Achakulvisut
@titipat_a, Github: titipata
Kording Lab, University of Pennsylvania

NLP prediction with Deep Learning

Output

Output Classifier

Sequence Vector

bi-LSTM

LSTM ← LSTM ← LSTM ← ••• LSTM

LSTM → LSTM → LSTM → ••• LSTM

Sequence to Vector Model (Seq2Vec)

fastText word2vec Glove

•••

Sequence of text   <s>   We   show   that   •••

NLP prediction with Deep Learning

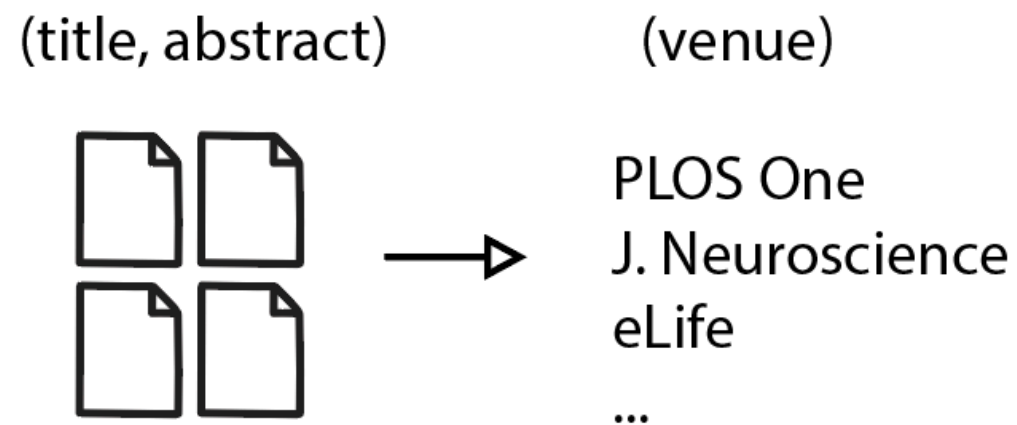|	
Output Classifier	Feed forward network
Sequence Vector	Concatenation
bi-LSTM	Write LSTM (backward/forward)
fastText **word2vec** **Glove**	Embedding Layer
Sequence of text	Build dictionary, dataset generator, padding, batching, …

Introduction to AllenNLP

- An open-source NLP research library, built on PyTorch (Python >= 3.6)
- Easy to design and evaluate new deep learning models
- Remove a lot of hassle for Deep Learning NLP pipeline
- Check out demo: http://demo.allennlp.org/machine-comprehension
- Installation: ``pip install allennlp``

Organizations using AllenNLP

AllenNLP Demo

- Make 2 classes: *DatasetReader, Model* (subclass of ``torch.nn.Module``)
- **Demo**:
    - **Question**: Which venue should we submit to?
    - **Dataset**: (title, abstract, venue) from 30 journals
    - **Output**: probability of venues

Thanks!