

# Dung Ngoc Thai

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## EDUCATION

**UMASS, AMHERST**  
**PH.D. COMPUTER SCIENCE**  
Sep 2016 - present

**HCMUT**  
**MS COMPUTER SCIENCE**  
Nov 2014 | HCM, VN  
Cum. GPA: 3.9

## SOCIALS

[github.com/dungtn](https://github.com/dungtn)  
[linkedin.com/in/dung-thai](https://www.linkedin.com/in/dung-thai)

## COURSES

**Reinforcement Learning**  
by Philip Thomas

**Machine Learning**  
by Srihar Mahadevan

**Deep Learning**  
by Erik Learned-Miller

## SKILLS

**Programming Languages**  
Python • Java • C++  
Matlab • Julia

**Frameworks**  
Theano • Tensorflow • Keras  
CUDA • NLTK

## REFERENCES

**Prof. Andrew McCallum**, UMass  
[mccallum@cs.umass.edu](mailto:mccallum@cs.umass.edu)  
**Prof. Nam Thoai**, HCMUT  
[nam@cse.hcmut.edu.vn](mailto:nam@cse.hcmut.edu.vn)  
**Prof. Vu Dinh**, HCMUT  
[vudda@uit.edu.vn](mailto:vudda@uit.edu.vn)

## SUMMARY

I'm a fourth year Ph.D. student at UMass Amherst, advised by **Prof. Andrew McCallum**. My research focuses on knowledge-informed language models and their applications for knowledge base completion and question answering. I'm intrigued by how models pre-trained with MLM objective perform so well on a wide range of tasks and would like to explore their capabilities when paired with semi-structured data such as knowledge graphs.

## RESEARCH EXPERIENCES

### INFORMATION EXTRACTION SYNTHESIS LAB | GRADUATE STUDENT

Sep 2016 – present | UMass Amherst, US

My ongoing research study how to enhance pre-trained language representations with information from knowledge graphs. Previously, I worked on training models on large-scale, distantly supervised data and modeling complex output constraints with Latent Conditional Random Field.

### IBM | RESEARCH INTERN

Yorktown 2020	<b>Compositional question answering over knowledge bases</b> built a retrieval-based language model and learn a knowledge-informed encoder-decoder model for answering natural question given a knowledge base.
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### ADOBE INC. | RESEARCH INTERN

San Jose 2018	<b>Question answering on semi-structured tables</b> built a multi-heads attention model based on the Neural Programmer architecture.
San Jose 2017	<b>Variational autoencoder for semi-supervised question answering</b> learned an unsupervised question representation to improve the generalization of the supervised question answering model.

## SELECTED PUBLICATIONS

EACL 2021	<b>Bi-directional Entity to Text Attention for Knowledge Informed Text Representations</b> Trapit Bansal, <b>Dung Thai</b> , Raghuveer Thirukovalluru, Andrew McCallum in submission to EACL
EACL 2021	<b>Knowledge Informed Semantic Parsing for Conversational QA</b> <b>Dung Thai</b> , Raghuveer Thirukovalluru, Mukund Sridhar, Shruti Chaudhary, Sankaranarayanan Ananthakrishnan, Andrew McCallum in submission to EACL
AKBC 2020	<b>Using BibTeX to Automatically Generate Labeled Data for Citation Field Extraction</b> <b>Dung Thai</b> , Zhiyang Xu, Nicholas Monath, Boris Veytsman, Andrew McCallum in Automated Knowledge Base Construction, Online
CoNLL 2018	<b>Embedded-State Latent Conditional Random Fields for Sequence Labeling (Oral Presentation)</b> <b>Dung Thai</b> , Sree H. Ramesh, Shikhar Murty, Luke Vilnis, Andrew McCallum in SIGNLL Conference on Computational Natural Language Learning, Belgium
ICML 2017	<b>Low-rank hidden state embeddings for Viterbi sequence labeling</b> <b>Dung Thai</b> , Shikhar Murty, Trapit Bansal, Luke Vilnis, David Belanger, Andrew McCallum in 1st DeepStruct Workshop, in 34 <sup>th</sup> International Conference on Machine Learning, Australia.