

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

COURSES

Reinforcement Learning
by Philip Thomas

Machine Learning
by Srihdar 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
Prof. Nam Thoai, HCMUT
nam@cse.hcmut.edu.vn
Prof. Vu Dinh, HCMUT
vudda@uit.edu.vn

SUMMARY

I'm a 3rd year Ph.D. student at UMass Amherst, advised by **Prof. Andrew McCallum**. My main research interest is learning procedural and combinatorial structure of behavior from textual data. This includes inducing latent programs and reasoning with these programs given their descriptions and example outputs. In particular, I'm working on Neural Programmer inspired model for question answering and reinforcement learning model for conversation over knowledge graph.

RESEARCH EXPERIENCES

INFORMATION EXTRACTION SYNTHESIS LAB | GRADUATE STUDENT
Sep 2016 – present | UMass Amherst, US

My on-going research develops a recurrent neural network model inspired by the Forward Backward algorithm. The expected result is an effective model on tasks involve large state spaces and require long-term dependencies.

KNOREX PTE. LTD. | SENIOR RESEARCH ENGINEER

Sep 2015 – Jun 2016 | HCM, VN

Applied deep learning to solve natural language processing tasks. In particular, developed a deep learning model for named entity recognition on news articles. Another task was abstractive text summarization/headline generation using the deep encoder/decoder model and attention mechanism.

TMR RESEARCH CENTER | SENIOR RESEARCH ENGINEER

May 2015 – Sep 2015 | HCM, VN

Developed a sentiment analysis model for brand/product on social media using the Long-Short Term Memory network and Double Propagation algorithm.

PUBLICATIONS

- CoNLL 2018 **Embedded-State Latent Conditional Random Fields for Sequence Labeling**
Dung Thai, Sree H. Ramesh, Shikhar Murty, Luke Vilnis, Andrew McCallum
in SIGNLL Conference on Computational Natural Language Learning, Belgium
- ICML 2017 **Low-rank hidden state embeddings for Viterbi sequence labeling**
Dung Thai, Shikhar Murty, Trapit Bansal, Luke Vilnis, David Belanger, Andrew McCallum
in 1st DeepStruct Workshop, in 34th International Conference on Machine Learning, Australia.
- ICARCV 2014 **Learning Bag-of-Words model for motorbike detection**
Dung Thai, Sach Le, Nam Thoai, Kazuhiko Hamamoto
in 13th International Conference on Control, Automation, Robotics and Vision, Singapore.
- ACOMP 2013 **A fast method for background subtraction with Gaussian Mixture Model on GPU**
Dung Thai, Sach Le, Nam Thoai
in Journal of Science and Technology, Vietnam Academy of Science and Technology, Vietnam.

AWARDS

- 2015 Vietnam Education Foundation Fellow, Cohort 2016.
2012 Ascenx Senior Project Sponsorship for project on WSN.
2008-2009 Scholarship for students of honor class.
2007-2012 Scholarship for meritorious students.