

# YU WU

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## EDUCATION

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- Bachelor of Computer Science and Engineering** Sept 2010 - June 2014  
Beihang University, School of Advanced Engineering
- Ph.D candidate of Computer Science and Engineering** Sept 2014 - June 2019  
Joint Ph.D. student of Beihang University and Microsoft Research Asia  
Supervised by Prof. Zhoujun Li and Ming Zhou.

## INTERNSHIP

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- Natural Language Computing Group, Microsoft Research Asia** July 2013 - Now
- I participated in project XiaoIce and BingKnows mentored by Wei Wu July 2013 - Dec 2017
- I participated in project Musely and SmartEditing mentored by Furu Wei Dec 2017 - Sept 2018
- I participated in spoken language processing project mentored by Shujie Liu Sept 2018 - Now

## PROJECTS

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- Microsoft BingKnows** Jan 2014 - Sept 2014  
<https://www.bing.com/knows>

- BingKnows is a vertical product of Bing China, that provides rich knowledge for an arbitrary entity, which aggregates interesting contents in Community Question Answering and valuable information from encyclopedia. I deeply participated in the implementation of clustering and ranking algorithms.

- Conversation as a Platform, Microsoft (XiaoIce, Rinna)** March 2015 - Dec 2017  
<http://www.msxiaoice.com/>

- Retrieval based chatbot: I participated in the design and implementation of retrieval based approaches for chatbots. I experimented some neural network based methods for **response selection** in chatbots, and helped collaborators ship it to the product environment. Besides, I participated in the **context-aware message detection**, target at determining if a message is conditioned on its previous conversational history. Above techniques have been shipped to XiaoIce Core-chat service that **serves millions of users**.
- Generation based chatbot: I participated in the design and implementation of the core generative model, which is built on top of the Seq2Seq model with some modifications for eliminating safe responses. The algorithm has been shipped to Microsoft chatbots in China, Japan and Indonesia. It successfully **solves the privacy issue** of retrieval based chatbots, and **achieves the same performance with the retrieval based method**.

- Musely: an AI Composer** Dec 2017 - Apr 2018

- Given a specific input, such as a piece of text, an image or a video, Musely is able to generate corresponding music by analyzing the input content. We proposed a semi-supervised model, namely StyleVAE, that is capable of leveraging limited labeled music data and huge amount of unlabeled data to handle the data sparsity issue of style-specific music generation.

## PUBLICATIONS

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**Yu Wu**, Furu Wei, Shaohan Huang, Yunli Wang, Ming Zhou, Zhoujun Li, Response Generation by Context-aware Prototype Editing. *AAAI 2019*

**Yu Wu**, Wei Wu, Chen Xing, Can Xu, Zhoujun Li, Ming Zhou. A Sequential Matching Framework for Multi-turn Response Selection in Retrieval-based Chatbots *Computational Linguistic, Impact Factor: 1.319*

**Yu Wu**, Wei Wu, Zhoujun Li, Ming Zhou Learning Matching Models with weak supervision in Retrieval-based Chatbots. *ACL 2018*

**Yu Wu**, Wei Wu, Zhoujun Li, Ming Zhou. Neural Response Generation with Dynamic Vocabularies *AAAI 2018*

**Yu Wu**, Wei Wu, Can Xu, Zhoujun Li, Ming Zhou. Knowledge Enhanced Hybrid Neural Network for Text Matching. *AAAI 2018*

**Yu Wu**, Wei Wu, Chen Xing, Ming Zhou, Zhoujun Li, Sequential Match Network: A New Architecture for Multi-turn Response Selection in Retrieval-based Chatbots *ACL 2017*

**Yu Wu**, Wei Wu, Zhoujun Li, Ming Zhou, Improving Recommendation of Tail Tags for Questions in Community Question Answering *AAAI 2016*

**Yu Wu**, Wei Wu, Zhoujun Li, Ming Zhou, Mining Query Subtopics from Questions in Community Question Answering *AAAI 2015*

**Yu Wu**, Wei Wu, Zhoujun Li, Ming Zhou, Response Selection with Topic Clues for Retrieval-based Chatbots *NeuroComputing, Impact Factor: 3.241*

Shaohan Huang, **Yu Wu**, Furu Wei, Ming Zhou Dictionary-Guided Editing Networks for Paraphrase Generation. *AAAI 2019*

Jun Chen, **Yu Wu**, Xiaoming Zhang, Zhao Yan and Zhoujun Li. Keyphrase Generation with Correlation Constraints. *EMNLP 2018*

Chen Xing, Wei Wu, **Yu Wu**, Jie Liu, Yalou Huang, Ming Zhou, Wei-Ying Ma. Hierarchical Recurrent Attention Network for Response Generation. *AAAI-18*

WenZheng Feng, Yu Wu, Wei Wu, Zhoujun Li, Ming Zhou, Beihang-MSRA at SemEval-2017 Task 3: A Ranking System with Neural Matching Features for Community Question Answering. *SemEval@ACL2017*

Dejian Yang, **Yu Wu**, Wei Wu, Zhoujun Li, Can Xu, Beihang at the NTCIR-13 STC-2 Task. *NTCIR-13*

Chen Xing, Wei Wu, **Yu Wu**, Jie Liu, Yalou Huang, Ming Zhou, Wei-Ying Ma Topic Aware Neural Response Generation *AAAI-17*

Chaozhuo Li, **Yu Wu**, Wei Wu, Chen Xing, Zhoujun Li, Ming Zhou, Detecting Context Dependent Messages in a Conversational Environment *COLING 2016*

## AWARDS

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Huawei Scholarship	May 2018
AdeptMind Scholarship (30 winners in the world)	Nov 2017
Microsoft Fellowship (10 winners in Asia)	Nov 2017
First Prize of Ph.D. academic scholarship	2015,2016,2017,2018
CASC Scholarship	Dec 2016
Ph.D. National Scholarship	Sept 2015

## ACADEMIC COMPETITIONS

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**Community Question and Answering @ SemEval 2017** Feb. 2017

· Second place for answer selection task among 20+ teams.

**Short Text Conversation @ NTCIR-13** Nov. 2017

· Second place for retrieval based Chatbot among 20+ teams.

## OTHER ACTIVITIES

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Reviewer for ACL 2018, COLING 2018.

Editor for “Introduction to Artificial Intelligence”, published by Chinese science and Technology Press, which is a textbook for Chinese undergraduate students.