

# Yu Chen | Curriculum Vitae

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## Education

<b>Rensselaer Polytechnic Institute</b> <i>Ph.D in Computer Science</i>	<b>Troy, NY</b> AUG. 2015 - MAY. 2020 (EXPECTED)
<b>The University of Michigan-Dearborn</b> <i>Exchange student in Computer &amp; Information Science</i>	<b>Dearborn, MI</b> SEP. 2014 - DEC. 2014
<b>The University of Electronic Science and Technology of China</b> <i>B.Eng. in Communication Engineering</i>	<b>Chengdu, China</b> SEP. 2011 - JUL. 2015

## Honors & Awards

<b>Student Travel Award of SIGKDD 2017</b> <i>ACM SIGKDD</i>	JUL. 2017
<b>Second Place at the 2016 DataThon</b> <i>Rensselaer Polytechnic Institute</i>	APR. 2016
<b>The First-Class People's Scholarship</b> <i>The University of Electronic Science and Technology of China</i>	2012 - 2013 & 2013 - 2014
<b>National Scholarship</b> <i>Ministry of Education of China, Top 1.6 %</i>	2011 - 2012

## Research & Work Experience

<b>Graduate Research Assistant, RPI</b> <i>Advisor: Prof. <a href="#">Mohammed J. Zaki</a></i>	<b>Troy, NY</b> MAY. 2017 - PRESENT
<b>Graduate Teaching Assistant, RPI</b>	<b>Troy, NY</b> AUG. 2015 - MAY. 2017
<b>Python Web Developer at Microoh</b>  Implemented a personalized learning management system for online education.	<b>Chengdu, China</b> MAR. 2015 - MAY. 2015
<b>Research Assistant in the Virtual Engineering Laboratory, UM-Dearborn</b> <i>Advisor: Prof. <a href="#">Jie Shen</a></i>	<b>Dearborn, MI</b> SEP. 2014 - DEC. 2014
<b>Research Assistant in the Web Sciences Center, UESTC</b> <i>Advisor: Prof. <a href="#">Tao Zhou</a></i> Discovered interesting human behavior patterns with temporal dynamics in social networks. More information <a href="#">here</a> .	<b>Chengdu, China</b> MAY. 2014 - JUL. 2014

## Projects

- Personalized search and recommendation for health empowerment** **Troy, NY**  
*Rensselaer Polytechnic Institute, Advisor: Prof. [Mohammed J. Zaki](#)* MAY. 2017 - PRESENT  
Developed a novel memory network-based question answering system to answer factoid questions by leveraging knowledge graphs.
- Unsupervised cluster labeling** **Troy, NY**  
*Rensselaer Polytechnic Institute, Advisor: Prof. [Heng Ji](#)* OCT. 2016 - DEC. 2016  
Designed an unsupervised algorithm to automatically pick descriptive, human-readable labels for the clusters of entities by learning to predict hyper-hyponym relationships via word embeddings.
- Evaluating countries and products in international trade** **Troy, NY**  
*Rensselaer Polytechnic Institute* APR. 2016  
Designed an evolutionary bipartite graph approach to evaluate which countries do better and which products are more valuable in international trade. More information [here](#).
- Predicting whose papers are accepted the most** **Troy, NY**  
*Rensselaer Polytechnic Institute, Advisor: Prof. [Mohammed J. Zaki](#)* MAR. 2016 - MAY. 2016  
Designed multi-layered graph mining techniques to rank research institutes by predicting the number of accepted papers in incoming top conferences.
- Finding email correspondents in online social networks.** **Chengdu, China**  
*The University of Electronic Science and Technology of China* MAR. 2015 - MAY. 2015  
Designed an effective algorithm to help find email correspondents in online social networks by leveraging user profiles and network structures. More information [here](#).

## Publications

### Preprints.....

1. **Yu Chen**, Lingfei Wu and Mohammed J. Zaki, Reinforcement Learning Based Graph-to-Sequence Model for Natural Question Generation.
2. **Yu Chen**, Lingfei Wu and Mohammed J. Zaki, GraphFlow: Exploiting Conversation Flow with Graph Neural Networks for Conversational Machine Comprehension.

### Conference Publications.....

1. **Yu Chen**, Lingfei Wu and Mohammed J. Zaki. Natural Question Generation with Reinforcement Learning Based Graph-to-Sequence Model. **In NeurIPS 2019 workshop on Graph Representation Learning** (NeurIPS GRL 2019), Vancouver Canada, Dec 8-Dec 14, 2019.
2. Steven Haussmann, **Yu Chen**, Oshani Seneviratne, Nidhi Rastogi, James Codella, Ching-Hua Chen, Deborah McGuinness, Mohammed J. Zaki. FoodKG Enabled Q&A Application. **In Proceedings of the 18th International Semantic Web Conference** (ISWC 2019), Auckland, New Zealand, Oct. 26-Oct. 30, 2019.
3. Steven Haussmann, Oshani Seneviratne, **Yu Chen**, Yarden NeĀŽeman, James Codella, Ching-Hua Chen, Deborah L. McGuinness and Mohammed J. Zaki. FoodKG: A Semantics-Driven Knowledge Graph for Food Recommendation. **In Proceedings of the 18th International Semantic Web Conference** (ISWC 2019), Auckland, New Zealand, Oct. 26-Oct. 30, 2019.
4. **Yu Chen**, Lingfei Wu and Mohammed J. Zaki. GraphFlow: Exploiting Conversation Flow with Graph Neural Networks for Conversational Machine Comprehension. **In ICML 2019 Workshop on Learning and Reasoning with Graph-Structured Representations** (ICML LRG 2019), Long Beach, CA, June 9-June 15, 2019.
5. **Yu Chen**, Lingfei Wu and Mohammed J. Zaki. Bidirectional Attentive Memory Networks for Ques-

tion Answering over Knowledge Bases. **In Proceedings of the 2019 Annual Conference of the North American Chapter of the Association for Computational Linguistics (NAACL-HLT 2019)**, Minneapolis, MN, June 2-June 7, 2019. Long Oral Paper.

6. **Yu Chen**, Rhaad M. Rabbani, Aparna Gupta and Mohammed J. Zaki. Comparative Text Analytics via Topic Modeling in Banking. **In Proceedings of the 2017 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2017)**, Hawaii, USA, Nov 27-Dec 1, 2017.
7. **Yu Chen** and Mohammed J. Zaki. KATE: K-competitive Autoencoder for Text. **In Proceedings of the 23rd International Conference on Knowledge Discovery and Data Mining (ACM SIGKDD 2017)**, Halifax, Nova Scotia, Canada, August 13-17, 2017. Full Oral Paper. Acceptance rate=8.6% (64 out of 748).
8. **Yu Chen**, Hao Chen and Jie Shen. Fast Voxel-based Surface Propagation Method for Outlier Removal. **In Proceedings of the 13th International CAD Conference**, Vancouver, BC, Canada, June 27-29, 2016.

#### Journal Publications.....

1. Hao Chen, **Yu Chen**, Xu Zhang, Baiyuan Li, Xiaoqiang Liu, Xuefei Shi and Jie Shen. A Fast Voxel-based Method for Outlier Removal in Laser Measurement. **In International Journal of Precision Engineering and Manufacturing**, 2019.

#### Patents

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1. Lingfei Wu, **Yu Chen**, Mohammed J. Zaki. Method and System for Natural Question Generation via Reinforcement Learning Based Graph-to-Sequence Model. To be filed, 2019.
2. Lingfei Wu, **Yu Chen**, Mohammed J. Zaki. Conversation History Within Conversational Machine Reading Comprehension. Aug, 2019.

#### Skills

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**Research:** Machine Learning, Deep Learning, Natural Language Processing, Data Mining

**Programming:** PYTHON = C/C++ > MATLAB > JAVA = R = SCHEME = JAVASCRIPT = PHP

**Software:** Linux, Database, PyTorch, TensorFlow, Keras