

# Xiaoyu (Ariel) Yang

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## RESEARCH INTERESTS

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Natural Language Processing, Natural Language Inference, Commonsense Reasoning,  
Reasoning over Textual and Structured Data, Machine Learning, Deep Learning.

## EDUCATION

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**Queen's University**, Kingston, ON, Canada Sept. 2018–Current  
Ph.D Candidate, Department of Electrical and Computer Engineering

**Nankai University**, Tianjin, China Sept. 2012–Jun. 2016  
Bachelor, Department of Computer and Control Engineering, GPA: 87/100, Ranking: 4/35

## RESEARCH ACHIEVEMENTS

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**Program Enhanced Fact Verification with Verbalization and Graph Attention Network** **EMNLP-2020**  
(Xiaoyu Yang, Feng Nie, Yufei Feng, Quan Liu, Zhigang Chen, Xiaodan Zhu)

- State-of-the-art performance on table fact verification by combining neural network and symbolic programs.
- Designed a graph network to combine the Bert model and verbalized operations for table reasoning.

**SemEval-2020 Task 5: Counterfactual Recognition – Task Organizer** **SemEval-2020**  
(Xiaoyu Yang, Stephen Obadinma, Huasha Zhao, Qiong Zhang, Stan Matwin, Xiaodan Zhu)

- Scraped around 120k relevant sentences from web, obtained 20k annotated samples using Mechanical Turk.
- Implemented the baseline model, organized the system evaluation and the workshop paper review process.

**Enhancing Unsupervised Pretraining with External Knowledge for Natural Language Inference**  
(Xiaoyu Yang, Xiaodan Zhu, Huasha Zhao, Qiong Zhang, Yufei Feng) **CanadianAI-2019**

- Integrate WordNet/ConceptNet knowledge into pre-trained neural networks for natural language inference.

**The 9th Dialog System Technology Challenge – Track 1** **DSTC-9**  
Conversation modeling with unstructured knowledge access, 2nd place in objective evaluation.

- Designed a Retrieve & Rank model for knowledge selection that outperforms baseline by 35%.

## EXPERIENCE

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**Machine Learning Engineer Intern** Jun. 2018 – Aug. 2018  
Alibaba Damo Academy, Alibaba Group, Hangzhou, China

- Developed a neural client information extraction model for Ant Financial insurance policy documents.

**Research Assistant** Sept. 2016 – May 2018  
Institute of Information Engineering, Chinese Academy of Science, Beijing, China

- Implemented rules with Esper to detect special IP access in a real-time web traffic monitoring system.
- Dumped web event logs to the Elasticsearch database and used Kibana for visualization and analysis.

## SCHOLARSHIPS AND AWARDS

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- Vector Institute Scholarship 2019–2020
- Honorable Mention in 2015 Mathematical Contest in Modeling (MCM/ICM) 2015
- Second-grade scholarship (3 consecutive academic years) 2012–2015