

# Meng Cao

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## EDUCATION

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<b>Mila - Québec AI Institute / McGill University</b>	Sept. 2019 – Present
Ph.D. in Computer Science	GPA: 4.0/4.0
Advisor: Jackie Chi Kit Cheung	
<b>Northeastern University (China)</b>	Sept. 2015 – June 2019
Major in Software Engineering	GPA: 3.96/4.0
Advisor: Dancheng Li	
Ranking: 1/59	

## RESEARCH INTERESTS

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Natural Language Processing, Text Summarization, Language Generation, Deep Learning

## PUBLICATIONS

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- [1] **Meng Cao**, Yue Dong and Jackie C. K. Cheung. *Inspecting the Factuality of Hallucinated Entities in Abstractive Summarization*. <https://arxiv.org/abs/2109.09784>.
- [1] **Meng Cao**, Yue Dong, Jiapeng Wu and Jackie C. K. Cheung. *Factual Error Correction for Abstractive Summarization Models*. EMNLP (2020).
- [2] Jiapeng Wu, **Meng Cao**, Jackie Chi Kit Cheung, William L. Hamilton. *TeMP: Temporal Message Passing for Temporal Knowledge Graph Completion*. EMNLP (2020).
- [3] **Meng Cao** and Jackie Chi Kit Cheung. *Referring Expression Generation Using Entity Profiles*. EMNLP-IJCNLP (2019).
- [4] **Meng Cao**, Chaohe Zhang, Dancheng Li, Qingping Zheng and Ling Luo. *Transfer Learning for Cross-Domain Sequence Tagging Tasks*. Future of Information and Communications Conference (FICC) 2018, San Francisco, March 14-15, 2019.

## INDUSTRY EXPERIENCES

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<b>HUAWEI – Canada, Montreal</b>	May 2021 – Dec 2021
Research Intern, NLP Team	Advisor: Mehdi Rezagholizadeh
<ul style="list-style-type: none"><li>Improve knowledge distillation on text generation model</li></ul>	
<b>Borealis AI – Canada, Toronto</b>	May 2020 – August 2020
Research Intern, Alan Team	Advisor: Yanshuai Cao
<ul style="list-style-type: none"><li>Build a distributed data-parallel Text-to-SQL system.</li><li>Applied meta-learning algorithms (MAML, Reptile, MetaReg) in cross-database semantic parsing task.</li><li>Achieved promising results in the zero-shot domain transfer setting.</li></ul>	
<b>IBM Research – China, Beijing</b>	September 2018 – June 2019
Research Assistant Intern, Information Analytics Team	Advisor: Shiwan Zhao
<ul style="list-style-type: none"><li>Chinese word segmentation: responsible for training Chinese word segmentation model. Proposed a novel segmentation model based on n-gram and information entropy to segment the input sentences.</li><li>Neural Architecture Search: PyTorch implementation of Google's ENAS neural architecture algorithm.</li></ul>	

- Migrated a neural network model which is implemented in Keras into Java environment using Deeplearning4j.

## PRESENTATIONS AND TALKS

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<i>Factual Error Correction for Abstractive Summarization Models (Poster)</i> EMNLP 2020	Nov., 2020 Online
<i>Referring Expression Generation Using Entity Profiles (Poster)</i> EMNLP 2019	Nov., 2019 Hong Kong, China
<i>Transfer Learning for Cross-Domain Sequence Tagging Tasks (Oral)</i> FICC 2018	March, 2019 San Francisco, USA

## SCHOLARSHIPS

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<b>China National Scholarship (¥ 16,000)</b> The Chinese Government, among top-0.2% all undergraduates in China	2015-2016, 2017-2018
<b>The Bao Gang Education Scholarship (¥ 10,000)</b> China BAOWU Steel Group, selected rate: 4/20000 in NEU	September 2018
<b>The First-Class Scholarship in Northeastern University (¥ 9,000)</b> Northeastern University, among top-3% undergraduates in NEU	2015-2016, 2016-2017, 2017-2018

## AWARDS

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<b>“Top Ten Undergraduates” in Northeastern University</b> Northeastern University, among top-0.2% undergraduates in NEU	May 2018
<b>The Excellent Performance Award for IBM Undergraduate Innovation Lab Program</b> IBM Research China, Beijing	April 2017
<b>The First Prize in the 8th National College Students Mathematics Competition</b> Chinese Mathematical Society	October 2016
<b>The First Prize in the 9th National College Students Mathematics Competition</b> Chinese Mathematical Society	October 2017
<b>The Meritorious Winner for the Mathematical Contest in Modeling (MCM/ICM), 2018</b> COMAP, the Consortium for Mathematics and Its Applications (USA)	February 2018
<b>The Honorable Mention for the Mathematical Contest in Modeling (MCM/ICM), 2017</b> COMAP, the Consortium for Mathematics and Its Applications (USA)	February 2017

## RESEARCH FUNDING

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<b>Mitacs Globalink Research Internship (\$19,500)</b> Mitacs Globalink summer research internship program (\$4,500) & Mitacs graduate student funding (\$15,000)	June 2018 – September 2018
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## TEACHING EXPERIENCES

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<b>COMP 303 – Software Design</b> (McGill University) Teaching assistant	Winter 2020, 2021
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## SKILLS

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**Programming Languages:** skilled in: Java, Python (especially NumPy, PyTorch); familiar with: Tensorflow, JavaScript, SQL

**Extensive knowledge of:** Natural Language Processing, Abstractive Text Summarization, Machine Learning (generative models), Deep Learning