

YIFAN GAO

Ph.D. Candidate, Natural Language Processing, Machine Learning

+852 9794 6496 | yifangao95@gmail.com | Shatin N.T., Hong Kong SAR | [Linkedin](#) | [Github](#) | [Google Scholar](#)

SUMMARY

- Fourth-year Ph.D. student with 7 first-author papers published in top natural language processing venues
- Former Applied Scientist Intern/Research Intern at Amazon AWS AI Labs, Salesforce Research, and Tencent AI Lab
- Research and development experience in question answering, text generation, and open-domain dialogue

EXPERIENCE

Applied Scientist Intern, Amazon Web Services (AWS) AI Labs

July 2020 – Sep. 2020

Manager: Ramesh Nallapati, Mentor: Henghui (Henry) Zhu

New York City, NY, USA (virtually)

- Investigated the query ambiguity problem in open-domain question answering
- Proposed a novel generative evidence fusion approach to find multiple interpretations for ambiguous questions
- Ranked 1st on the [AmbigQA Leaderboard](#) with 30% improvement, submitted a first-author paper to a top venue

Research Intern, Salesforce Research

Oct. 2019 – Jan. 2020

Manager: Steven C.H. Hoi & Shafiq Joty, Mentor: Chien-Sheng (Jason) Wu

Singapore

- Worked on implicative reasoning in conversational machine reading
- Proposed a new framework to explicitly track entailment states in multi-turn interactions for implicative reasoning
- Published [one paper in ACL 2020](#), ranked 1st on the [ShARC Leaderboard](#) (Nov. 2019), and filed one patent

Research Intern, Tencent AI Lab

May 2018 – Aug. 2019

Manager: Lidong Bing & Piji Li

Shenzhen, China

- Performed research on question generation in machine reading comprehension
- Published several first-author papers in [conversational question generation \(ACL 2019\)](#), [difficulty controllable question generation \(IJCAI 2019\)](#), and [distractor generation \(AAAI 2019\)](#)

EDUCATION

The Chinese University of Hong Kong

Hong Kong

Ph.D. Candidate in Computer Science and Engineering

Aug. 2017 – Dec. 2021 (expected)

Advisors: [Irwin King](#) (IEEE Fellow), [Michael R. Lyu](#) (IEEE Fellow, ACM Fellow)

Beihang University

Beijing, China

B.Eng. in Electronic and Information Engineering

Aug. 2013 – July 2017

Excellent Undergraduate Award (2017), National Scholarship (2014)

PUBLICATIONS

1. **Yifan Gao**, Chien-Sheng Wu, Jingjing Li, Shafiq Joty, Steven C.H. Hoi, Caiming Xiong, Irwin King, Michael R. Lyu, [Discern: Discourse-Aware Entailment Reasoning Network for Conversational Machine Reading](#), in **EMNLP 2020**, [code].
2. **Yifan Gao**, Chien-Sheng Wu, Shafiq Joty, Caiming Xiong, Richard Socher, Irwin King, Michael R. Lyu, Steven C.H. Hoi, [Explicit Memory Tracker with Coarse-to-Fine Reasoning for Conversational Machine Reading](#), in **ACL 2020**, [code].
3. **Yifan Gao**, Piji Li, Irwin King, Michael R. Lyu, [Interconnected Question Generation with Coreference Alignment and Conversation Flow Modeling](#), in **ACL 2019**, [code].
4. Jingjing Li*, **Yifan Gao***, Lidong Bing, Irwin King, Michael R. Lyu (* indicates equal contribution), [Improving Question Generation With to the Point Context](#), in **EMNLP 2019**.
5. **Yifan Gao**, Piji Li, Wei Bi, Xiaojiang Liu, Michael R. Lyu, Irwin King, [Dialogue Generation on Infrequent Sentence Functions via Structured Meta-Learning](#), in **Findings of ACL: EMNLP 2020**.
6. **Yifan Gao**, Lidong Bing, Wang Chen, Irwin King, Michael R. Lyu, [Difficulty Controllable Generation of Reading Comprehension Questions](#), in **IJCAI 2019**.
7. **Yifan Gao**, Lidong Bing, Piji Li, Irwin King and Michael R. Lyu, [Generating Distractors for Reading Comprehension Questions from Real Examinations](#), in **AAAI 2019**, [code].
8. Wang Chen, **Yifan Gao**, Jiani Zhang, Irwin King, Michael R. Lyu, [Title-Guided Encoding for Keyphrase Generation](#), in **AAAI 2019**.

PROFESSIONAL SERVICES

Journal Reviewer: ACM Transactions on Intelligent Systems and Technology (TIST)

Conference Program Committee Member: AAAI (2019, 2020, 2021), ACL (2020), EMNLP (2020), ICLR (2021), ICML (2020), IJCAI (2021), NAACL (2021)

Membership: Association for Computational Linguistics (2018 – present), Association for the Advancement of Artificial Intelligence (2019)

SKILLS

Languages & Deep Learning Frameworks: Python, C/C++, Matlab, PyTorch, TensorFlow, Keras

Developer Tools: Git, Docker, Google Cloud Platform, AWS (EC2, EFS, S3, SageMaker), PyCharm

Libraries: Huggingface Transformers, OpenNMT-py, TorchText