

YIFAN GAO

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

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EDUCATION

The Chinese University of Hong Kong

Ph.D. Candidate in Computer Science and Engineering

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

Hong Kong SAR

Aug. 2017 – Dec. 2021 (expected)

Beihang University

B.Eng. in Electronic and Information Engineering

Excellent Undergraduate Award (15 out of 300), National Scholarship (6 out of 300)

Beijing, China

Aug. 2013 – July 2017

Technische Universität Darmstadt

Exchange Student in Computer Science

Darmstadt, Germany

2016 Fall

EXPERIENCE

Applied Scientist Intern, Amazon Web Services (AWS) AI

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

July 2020 – Sep. 2020

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
- Published [one paper in ACL 2021](#), ranked 1st on the [AmbigQA Leaderboard](#), and filed one patent

Research Intern, Salesforce Research

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

Oct. 2019 – Jan. 2020

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

Manager: Lidong Bing & Piji Li

May 2018 – Aug. 2019

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 \(AAAI 2019\)](#)

SELECTED PUBLICATIONS

- Yifan Gao**, Henghui Zhu, Patrick Ng, Cicero Nogueira dos Santos, Zhiguo Wang, Feng Nan, Dejiao Zhang, Ramesh Nallapati, Andrew O. Arnold, Bing Xiang, [Answering Ambiguous Questions through Generative Evidence Fusion and Round-Trip Prediction](#), to appear in **ACL 2021**.
- 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].
- 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].
- Yifan Gao**, Piji Li, Irwin King, Michael R. Lyu, [Interconnected Question Generation with Coreference Alignment and Conversation Flow Modeling](#), in **ACL 2019**, [code].
- 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**.
- 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**.
- Yifan Gao**, Lidong Bing, Wang Chen, Irwin King, Michael R. Lyu, [Difficulty Controllable Generation of Reading Comprehension Questions](#), in **IJCAI 2019**.
- 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].

PROFESSIONAL SERVICES

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

Conference Program Committee Member: AAAI (2019, 2020, 2021), ACL (2020,2021), ACL Rolling Review, EMNLP (2020,2021), ICLR (2021), ICML (2020,2021), IJCNN (2020,2021), IJCAI (2021-Senior), NAACL (2021), NeurIPS (2021)