

# RICHARD YUANZHE PANG

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WEBSITE	yzpang.me	
REMARK	Updated on March 27, 2022.	
RESEARCH INTERESTS	Natural language processing and machine learning. Specifically, I am excited about (1) high-precision and efficient text generation (including neural machine translation, RL in generation, etc.); (2) structured prediction learning and inference algorithms; and (3) long-document-based tasks in NLP.	
EDUCATION	<b>Courant Institute of Mathematical Sciences</b> <b>New York University</b> , New York, New York, USA September 2019 – Ph.D. student in Computer Science Advisors: He He, Kyunghyun Cho	
	<b>The University of Chicago</b> , Chicago, Illinois, USA September 2015 – June 2019 B.S. in Computer Science (departmental honors), B.S. in Mathematics, B.A. in Statistics Cumulative GPA: 3.85/4.00; Research advisor since October 2017: Kevin Gimpel	
ADDITIONAL RESEARCH EXPERIENCE	<b>Google Brain</b> June 2021 – August 2021 Research Intern Host team: Denny Zhou, Le Hou, Xinying Song, Yuexin Wu, Xiaodan Song	
	<b>Google Research New York</b> May 2020 – August 2020 Research Intern Host team: Cong Yu, Adam Lelkes, Vinh Tran	
	<b>Toyota Technological Institute at Chicago (TTIC)</b> June 2018 – September 2018 Summer Visiting Student; Host: Kevin Gimpel	
PREPRINTS	Richard Yuanzhe Pang, He He, Kyunghyun Cho. <b>Amortized Noisy Channel Neural Machine Translation</b> . <i>Preprint</i> , December 2021.	
	Richard Yuanzhe Pang*, Alicia Parrish*, Nitish Joshi*, Nikita Nangia, Jason Phang, Angelica Chen, Vishakh Padmakumar, Johnny Ma, Jana Thompson, He He, Samuel R. Bowman. <b>QuALITY: Question Answering with Long Input Texts, Yes!</b> . <i>Preprint</i> , December 2021.	
PUBLICATIONS	Le Hou*, Richard Yuanzhe Pang*, Tianyi Zhou, Yuexin Wu, Xinying Song, Xiaodan Song, Denny Zhou. <b>Token Dropping for Efficient BERT Pretraining</b> . In <i>Proceedings of ACL 2022</i> .	

Richard Yuanzhe Pang\*, Adam D. Lelkes\*, Vinh Q. Tran\*, Cong Yu. **AgreeSum: Agreement-Oriented Multi-Document Summarization**. In *Findings of ACL 2021*.

Clara Vania\*, Phu Mon Htut\*, William Huang\*, Dhara Mungra, Richard Yuanzhe Pang, Jason Phang, Haokun Liu, Kyunghyun Cho, Samuel R. Bowman. **Comparing Test Sets with Item Response Theory**. In *Proceedings of ACL 2021*.

Richard Yuanzhe Pang, He He. **Text Generation by Learning from Demonstrations**. In *Proceedings of ICLR 2021*. Algorithm behind AlphaCode.

Lifu Tu, Richard Yuanzhe Pang, Kevin Gimpel. **Improving Joint Training of Inference Networks and Structured Prediction Energy Networks**. In *Proceedings of EMNLP 2020 Workshop on Structured Prediction for NLP (SPNLP)*. Spotlight paper.

Sean Welleck\*, Ilia Kulikov\*, Jaedeok Kim, Richard Yuanzhe Pang, Kyunghyun Cho. **Consistency of a Recurrent Language Model With Respect to Incomplete Decoding**. In *Proceedings of EMNLP 2020*. Also appearing in the non-archival *DeepMath 2020*.

Lifu Tu, Richard Yuanzhe Pang, Sam Wiseman, Kevin Gimpel. **ENGINE: Energy-Based Inference Networks for Non-Autoregressive Machine Translation**. In *Proceedings of ACL 2020*.

Yada Pruksachatkun\*, Jason Phang\*, Haokun Liu\*, Phu Mon Htut\*, Xiaoyi Zhang, Richard Yuanzhe Pang, Clara Vania, Katharina Kann, Samuel R. Bowman. **Intermediate-Task Transfer Learning with Pretrained Language Models: When and Why Does It Work?**. In *Proceedings of ACL 2020*.

Richard Yuanzhe Pang, Kevin Gimpel. **Unsupervised Evaluation Metrics and Learning Criteria for Non-Parallel Textual Transfer**. In *Proceedings of EMNLP 2019 Workshop on Neural Generation and Translation (WNGT)*.

Richard Yuanzhe Pang. **The Daunting Task of Real-World Textual Style Transfer Auto-Evaluation**. Extended abstract in *EMNLP 2019 Workshop on Neural Generation and Translation (WNGT)*, abstract in *Proceedings of EMNLP 2019 Workshop on Noisy User-generated Text (W-NUT)*.

RESEARCH  
PRESENTATIONS  
(INVITED OR  
EXTERNAL)

- Talk on *QuALITY: Question Answering with Long Input Texts, Yes!* as a guest speaker in NYU's undergraduate course LING-UA 52 / DS-UA 203 (ML for Language Understanding); March 2022
- Talk on *Text Generation by Learning from Demonstrations* as a guest speaker in NYU's graduate course DS/LING-GA 1012 (Natural Language Understanding); March 2022
- Talk titled *A Long-Document-Based Multiple-Choice Question Answering Dataset*; Apple (Answers & Web Ranking team); December 2021
- Talk titled *Text Generation by Learning from Demonstrations*; Samsung workshop (together with Mila – Quebec AI Institute and New York University); June 2021
- Invited talk on energy-based structured prediction; Bank of New York Mellon in New York, USA; September 2020
- Talk titled *Text Generation by Offline RL*; Google Research New York; July 2020
- Poster presentation on *Learning Criteria and Evaluation Metrics for Textual Transfer between Non-Parallel Corpora*; NAACL 2019 NeuralGen workshop in Minneapolis, USA; June 2019

	<ul style="list-style-type: none"> <li>• Talk titled <i>Learning Approximate Inference Networks and Structured Prediction Energy Networks</i>; Midwest Speech and Language Days (MSLD) 2019 in Chicago, USA; May 2019</li> <li>• Poster presentation on <i>Learning Criteria and Evaluation Metrics for Textual Transfer between Non-Parallel Corpora</i>; UChicago STEM Research Symposium in Chicago, USA; October 2018</li> </ul>		
RESEARCH PRESENTATIONS (IN CONFERENCES WITH ASSOCIATED PROCEEDINGS)	<ul style="list-style-type: none"> <li>• 5-min talk and poster presentation on <i>Text Generation by Learning from Demonstrations</i>; ICLR 2021; May 2021</li> <li>• Poster presentation and lightning talk on <i>The Daunting Task of Real-World Textual Style Transfer Auto-Evaluation</i>; EMNLP 2019 WNGT workshop (poster) and W-NUT workshop (lightning talk) in Hong Kong, China; November 2019</li> <li>• Poster presentation on <i>Unsupervised Evaluation Metrics and Learning Criteria for Non-Parallel Textual Transfer</i>; EMNLP 2019 WNGT workshop in Hong Kong, China; November 2019</li> </ul>		
PROFESSIONAL ACTIVITIES	<p>As a member in the program committee / as a reviewer:</p> <ul style="list-style-type: none"> <li>• ACL Rolling Review (10,11/2021; 01/2022), ACL (2021), EMNLP (2021), ICLR (2022), ICLR blog post track (2022), ICML (2022), NeurIPS (2021)</li> <li>• Workshops: Novel Ideas in Learning-to-Learn through Interaction (NILLI; at EMNLP 2021), Efficient Benchmarking in NLP (NLP Power!; at ACL 2022)</li> </ul> <p>Others:</p> <ul style="list-style-type: none"> <li>• Co-organizer of NYU AI School 2022</li> </ul>		
TEACHING (NYU)	Spring	2022	<i>Section Leader / Teaching Assistant</i> , DS/LING-GA 1012: Natural Language Understanding and Computational Semantics (Bowman)
	January	2022	<i>Co-Instructor / Teaching Assistant</i> , NYU AI School 2022
	Fall	2020	<i>Section Leader</i> , DS-GA 1008: Deep Learning (Cho, LeCun)
TEACHING (UCHICAGO)	Spring	2017	<i>Course Assistant</i> , MATH 15910: Intro to Proofs in Analysis
	Winter	2017	<i>Course Assistant</i> , MATH 15910: Intro to Proofs in Analysis
	Winter	2017	<i>Grader</i> , CMSC 15200: Intro to Computer Science II
	Autumn	2016	<i>Teaching Assistant</i> , MATH 15300: Calculus III
MAJOR HONORS AND FUNDING	<ul style="list-style-type: none"> <li>• October 2021. <b>NeurIPS 2021 Outstanding Reviewer Award</b>, presented to top ~8% of all reviewers.</li> <li>• September 2021. <b>Google “Research Collabs” Award</b> with Prof. He He (NYU); collaborating with Dr. Ankur Parikh (Google); ~80,000 dollars.</li> <li>• October 2019. <b>EMNLP and WNGT Student Travel Scholarship</b>. 1,000 dollars of scholarship for travel to EMNLP-IJCNLP 2019.</li> <li>• September 2019. <b>New York University Henry M. MacCracken Fellowship</b>. Full funding support for the first five years of doctoral study (no teaching obligation).</li> <li>• June 2018. <b>NAACL Scholarship for 2018 JSALT Summer School</b>. Awarded full scholarship (6 recipients) by the North American Chapter of the Association for Computational Linguistics for participation in 2018 Jelinek Memorial Workshop on Speech and Language Technology Summer School at Johns Hopkins University.</li> </ul>		

- April 2018. **The University of Chicago Jeff Metcalf Fellowship**. Received ~4,300 dollars of funding for Summer 2018 research activities.
- May 2017. **Award from Citadel and Correlation One**. Our team of 4 (out of ~600 participants) was awarded 20,000 dollars for winning the 2017 Chicago Data Open.

OTHER HONORS    ☐ General Honors of the University of Chicago (2019)  
☐ Departmental Honors (computer science) of the University of Chicago (2019)  
☐ Dean's List of the College (2015-16, 16-17, 17-18, 18-19)  
☐ Illinois Tech Association 2017 Tech Challenge Finalist (top 8%)

REFERENCES    **He He** hehe@cs.nyu.edu  
 Assistant Professor in the Department of Computer Science (Courant) and the Center for Data Science at New York University

**Kyunghyun Cho** kyunghyun.cho@nyu.edu  
 Associate Professor in the Department of Computer Science (Courant) and the Center for Data Science at New York University

**Kevin Gimpel** kgimpel@ttic.edu  
 Assistant Professor at Toyota Technological Institute at Chicago (TTIC) and Assistant Professor in the Department of Computer Science at the University of Chicago

**Samuel Bowman** bowman@nyu.edu  
 Assistant Professor in the Department of Linguistics, the Center for Data Science, and the Department of Computer Science (Courant) at New York University