

SANXING CHEN

CONTACT INFORMATION	https://sxing.xyz sc3hn@virginia.edu
RESEARCH INTEREST	My long-term research interests lie primarily in helping computers to learn natural languages like humans. Currently, I focus on grounded language learning, especially in finding intuitive methods to facilitate language understanding and reasoning with structured knowledge representation.
EDUCATION	University of Virginia (Charlottesville) Aug. 2019 - Exp. Dec. 2020 <i>M.S. in Computer Science</i> Advisor: <i>Yangfeng Ji</i> Thesis committee: <i>Vicente Ordóñez, Yanjun Qi</i> GPA: 3.87/4 China University of Geosciences (Beijing) Sept. 2015 - Jun. 2019 <i>Bachelor of Computer Science</i>
RESEARCH EXPERIENCE	Natural Language Processing Group, University of Virginia Aug. 2019 - Now Student Researcher <i>with Prof. Yangfeng Ji</i> <ul style="list-style-type: none">• Explored the idea of using graph neural network methods, e.g. graph neural networks and relational-aware transformers, to improve text modeling with groundings to graph data.• Formulated two linking processes from the entity generation procedure of cross-domain Text-to-SQL semantic parsing, introduced a gating mechanism to facilitate their cooperation. Bing Ads & Deep Learning Group, Microsoft Research AI May. 2020 - Aug. 2020 Research Intern <i>with Dr. Xiaodong Liu and Dr. Jian Jiao</i> <ul style="list-style-type: none">• Proposed a hierarchical transformer model to jointly learn entity-relation composition and relational contextualization in knowledge graphs.• Researched in relational learning for NLP. Knowledge Computing Group, Microsoft Research Asia Mar. 2019 - Jun. 2019 Research Intern <i>with Guoxin Wang and Dr. Börje Karlsson</i> <ul style="list-style-type: none">• Researched in word representations for time expression recognition, built the first neural system which achieves the SOTA results in this task.• Enhanced a rule-based time expression extraction system by incorporating a neural classifier to the pipeline to filter out false positive cases causing by ambiguous word senses. Big Data Mining Group, Microsoft Research Asia Feb. 2018 - Sep. 2018 Research SWE Intern <i>with Dr. Börje Karlsson</i> <ul style="list-style-type: none">• Developed <code>Microsoft.Recognizers.Text</code> which is a toolkit providing robust multilingual support for recognition and resolution of entities like numbers, date/time, and units for downstream NLP applications. URL: https://github.com/Microsoft/Recognizers-Text (~ 800 stars)
PUBLICATIONS	<i>A Tale of Two Linkings: Dynamically Gating between Schema Linking and Structural Linking for Text-to-SQL Parsing</i> Sanxing Chen , Aidan San, Xiaodong Liu, Yangfeng Ji <i>International Conference on Computational Linguistics (COLING)</i> , 2020. <i>arXiv:2009.14809</i> .
MANUSCRIPTS	<i>HittER: Hierarchical Transformers for Knowledge Graph Embeddings</i> Sanxing Chen , Xiaodong Liu, Jianfeng Gao, Jian Jiao, Ruofei Zhang, Yangfeng Ji <i>arXiv:2008.12813</i> . August 2020. <i>Exploring Word Representations on Time Expression Recognition</i> Sanxing Chen , Guoxin Wang, Börje Karlsson <i>Technical report</i> . May 2019.

HONORS AND AWARDS	Academic Excellence Fellowship <i>Department of Computer Science, University of Virginia</i>	Sept. 2019
	Award of Excellence <i>Stars of Tomorrow Internship Program, Microsoft Research Asia</i>	Sept. 2018
	Bronze Medal <i>the ACM-ICPC Asia Regional Contest Qingdao Site</i>	Nov. 2017
	Bronze Medal <i>the ACM-ICPC Asia Regional Contest Nanning Site</i>	Nov. 2017
	Bronze Medal <i>China Collegiate Programming Contest Harbin Site</i>	Oct. 2017

TEACHING EXPERIENCE	Algorithms in C Programming , China University of Geosciences	Summer 2018
	Organized a TA team as the head TA, gave tutorials related to programming languages and coursework assignments, managed class final exam and evaluation.	
	ACM-ICPC Algorithm Design , China University of Geosciences	Winter/Spring 2018
	Served as a student instructor to a team of contestants training for the ACM-sponsored international collegiate programming contest, gave regular lectures of advanced algorithm design and analysis.	

PROFESSIONAL SERVICE	Program Committee Members (Reviewers)	
	<ul style="list-style-type: none"> International Conference on Computational Linguistics (COLING): 2020 	
	Secondary Reviewers	
	<ul style="list-style-type: none"> IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI): 2020 	
	Student Volunteers	
	<ul style="list-style-type: none"> Annual Meeting of the Association for Computational Linguistics (ACL): 2020 	

SKILLS	Programming Languages: Python, JavaScript, C#, C/C++, Java
	Libraries and Tools: PyTorch, Linux, Git, Vim, HTML5, L ^A T _E X
	Music: I play the violin