

# Zhenduo Wang

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**EDUCATION**      **University of Utah, Salt Lake City, UT**      Aug. 2018 - Present  
Ph.D. candidate in Computer Science (Advised by Prof. Qingyao Ai and Prof. Vivek Srikumar)  
Thesis: Modeling Mix-initiative Conversational Search

**University of Minnesota Duluth, Duluth, MN**      Sept. 2016 - May 2018  
M.S. Mathematics (Co-advised by Prof. Yang Li and Prof. Ted Pedersen)

**Dalian University of Technology, Dalian, China**      Sept. 2012 - Jun. 2016  
B.E. student in Department of Software Engineering

**RESEARCH EXPERTISE**      I have previously worked on many Natural Language Processing and Information Retrieval tasks, particularly conversational AI systems and natural language generation. I am also experienced with Reinforcement Learning and Imitation Learning, as they played an important part in my past research.

**SELECTED PUBLICATIONS**      **Zhenduo Wang**, Zhichao Xu, Vivek Srikumar, and Qingyao Ai. An In-depth Investigation of User Response Simulation for Conversational Search. In The Web Conference 2024 (WWW).

**Zhenduo Wang**, Yuancheng Tu, Corby Rosset, Nick Craswell, Ming Wu, and Qingyao Ai. Zero-shot Clarifying Question Generation for Conversational Search. In The Web Conference 2023 (WWW).

**Zhenduo Wang** and Qingyao Ai. Simulating and Modeling the Risk of Conversational Search. In ACM Transactions on Information Systems (TOIS)

**Zhenduo Wang** and Qingyao Ai. Controlling the Risk of Conversational Search via Reinforcement Learning. In The Web Conference 2021 (WWW).

**Zhenduo Wang** and Ted Pedersen. UMDSUB at SemEval-2018 Task 2: Multilingual Emoji Prediction Multi-channel Convolutional Neural Network on Subword Embedding. In SemEval@NAACL-HLT 2018

Kevin Swanberg and Madiha Mirza and Ted Pedersen and **Zhenduo Wang**. ALANIS at SemEval-2018 Task 3: A Feature Engineering Approach to Irony Detection in English Tweets. In SemEval@NAACL-HLT 2018

**TALKS**      Conference Presentations

- “Zero-shot Clarifying Question Generation for Conversational Search.” In The Web Conference 2023 (WWW).
- “Controlling the Risk of Conversational Search via Reinforcement Learning.” The Web Conference 2021 (WWW).

	Invited Talks	
	<ul style="list-style-type: none"> <li>• “Controlling the Risk of Conversational Search via Reinforcement Learning.” SCAI: Search-Oriented Conversational AI Workshop at SIGIR Conference 2022.</li> </ul>	
<b>ACADEMIC SERVICE</b>	PC Members	
	<ul style="list-style-type: none"> <li>• <b>Distinguished Reviewer</b> in The 32nd ACM International Conference on Information and Knowledge Management (CIKM 2023)</li> <li>• ACM Transaction on Information Systems (TOIS-2023-0153)</li> <li>• The Twentieth China National Conference on Computational Linguistics (CCL 2021)</li> </ul>	
<b>WORK EXPERIENCE</b>	Research Intern at Microsoft	<i>May. 2022 - Aug. 2022</i>
	<ul style="list-style-type: none"> <li>• Conducted research about Zero-shot Clarifying question generation for conversational search and <b>published in The Web Conference 2023 (WWW)</b>.</li> </ul>	
	Machine Learning Intern at Roku Inc.	<i>May. 2021 - Aug. 2021</i>
	<ul style="list-style-type: none"> <li>• Conducted online and offline unbiased learning-to-rank research for Roku’s Search system and demonstrated its effectiveness.</li> </ul>	
	Data Scientist Intern at American Family Insurance	<i>May. 2019 - Aug. 2019</i>
	<ul style="list-style-type: none"> <li>• Developed, tested, and refined a BERT based Multi-Task Learning model for home issue classification.</li> </ul>	
<b>TEACHING EXPERIENCE</b>	Calculus I, II, III	<i>Sep. 2018 - Dec. 2019</i>
	<ul style="list-style-type: none"> <li>• Teaching assistant and discussion session lecturer</li> </ul>	
	Image Processing	<i>Sep. 2019 - Dec. 2019</i>
	Data Mining	<i>Jan. 2021 - May. 2021</i>
<b>DEVELOPING EXPERIENCE</b>	Magic Circle: A Card Video Game	<i>Jan. 2014 - Apr. 2015</i>
	<ul style="list-style-type: none"> <li>• Fully designed and developed a card game with Unity3D engine.</li> <li>• Won the third prize in the Microsoft Imagine Cup Game Competition 2015. Video: <a href="https://v.youku.com/v_show/id_XOTIyNzAxNjAw.html">https://v.youku.com/v_show/id_XOTIyNzAxNjAw.html</a> Project: <a href="https://github.com/zhenduow/TMC">https://github.com/zhenduow/TMC</a></li> </ul>	
<b>HONOR AND AWARDS</b>	Distinguished Reviewer in The 32nd ACM International Conference on Information and Knowledge Management (CIKM 2023)	2023
	Outstanding Graduate Student Award at University of Minnesota Duluth	2018
	Outstanding Graduate Teaching Assistant at University of Minnesota Duluth	2018
	Meritorious Winner (1 <sup>st</sup> prize) in Mathematical Contest In Modeling	2016
	3 <sup>rd</sup> prize in Microsoft Imagine Cup Games Competition	2015
	Outstanding Academic Work Scholarship at Dalian University of Technology	2014

Provincial 1<sup>st</sup> prize, National 3<sup>rd</sup> prize of Chinese Mathematical Competition 2013