

# Xingyu Wang

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CONTACT INFORMATION	2145 Sheridan Road Evanston, IL 60208 Webpage: <a href="https://joshwang0322.github.io">https://joshwang0322.github.io</a>	(224) 307-0602 <a href="mailto:xingyuwang2017@u.northwestern.edu">xingyuwang2017@u.northwestern.edu</a>
RESEARCH INTERESTS	<ul style="list-style-type: none"><li>• Rare Event Analysis, Large Deviations and Metastability, Heavy Tails</li><li>• Machine Learning Theory</li><li>• Stochastic Simulation</li></ul>	
EDUCATION	<b>Northwestern University, McCormick School of Engineering</b> • Ph.D. in <a href="#">Industrial Engineering and Management Sciences</a> , <i>GPA: 4.0/4.0</i> <i>Advisor: Chang-Han Rhee</i> • M.S. in <a href="#">Analytics</a> , <i>GPA: 3.98/4.00</i> <b>Peking University</b> • B.S. in Psychology ( <i>GPA: 3.8/4.0</i> ) and Applied Mathematics ( <i>GPA: 3.94/4.00</i> )	Evanston, IL 2018 - Present 2016 - 2017 Beijing, China 2011 - 2016
WORKING PAPERS	<b>Large Deviations and Metastability Analysis for Heavy-Tailed Dynamical Systems</b> <a href="#">[pdf]</a> Xingyu Wang, Chang-Han Rhee To be submitted to <i>Probability Theory and Related Fields</i> <i>Finalist for George Nicholson Student Paper Competition</i> , 2023  <b>Strongly Efficient Rare-Event Simulation for Multiple Jump Events in Regularly Varying Lévy Processes with Infinite Activities</b> Xingyu Wang, Chang-Han Rhee To be submitted to <i>Mathematics of Operation Research</i>	
SELECTED PUBLICATIONS	<b>Importance Sampling Strategy for Heavy-Tailed Systems with Catastrophe Principle</b> <a href="#">[pdf]</a> Xingyu Wang, Chang-Han Rhee Proceedings of Winter Simulation Conference (WSC), 2023  <b>Eliminating Sharp Minima from SGD with Truncated Heavy-Tailed Noises</b> <a href="#">[pdf]</a> Xingyu Wang, Sewoong Oh, Chang-Han Rhee Proceedings of International Conference on Learning Representations (ICLR), 2022 <i>Nemhauser Prize for Best Student Paper</i> , 2022  <b>Efficient Rare-Event Simulation for Multiple Jump Events in Regularly Varying Lévy Processes with Infinite Activities</b> <a href="#">[pdf]</a> Xingyu Wang, Chang-Han Rhee Proceedings of Winter Simulation Conference (WSC), 2020  <b>Competitive Multi-Agent Inverse Reinforcement Learning with Sub-Optimal Demonstrations</b> <a href="#">[pdf]</a> Xingyu Wang, Diego Klabjan Proceedings of International Conference on Machine Learning (ICML), 2018	

HONORS AND AWARDS	<ul style="list-style-type: none"> <li>• Finalist for <b>George Nicholson Student Paper Competition</b>, INFORMS 2023</li> <li>• <b>Terminal Year Fellowship</b>, Northwestern University 2023</li> <li>• <b>Nemhauser Prize for Best Student Paper</b>, Department of Industrial Engineering and Management Sciences, Northwestern University 2022</li> <li>• <b>Benjamin A. Sachs Graduate Fellowship</b>, Northwestern University 2022</li> <li>• <b>Arthur P. Hurter Award for Academic Excellence among First Year Graduate Students</b>, Department of Industrial Engineering and Management Sciences, Northwestern University 2019</li> <li>• <b>Lee Wai Wang Scholarship</b>, Department of Psychology, Peking University 2015</li> <li>• <b>National Scholarship of Undergraduates</b>, Department of Psychology, Peking University 2013</li> </ul>
CONFERENCE PRESENTATIONS	<b>Eliminating Sharp Minima from SGD with Truncated Heavy-Tailed Noises</b> <a href="#">[slides]</a> <ul style="list-style-type: none"> <li>• Applied Probability Society 2023 Conference, Nancy, France Jun, 2023</li> <li>• INFORMS Annual Meeting, Indianapolis, IN Oct, 2022</li> <li>• International Conference on Learning Representations (2022), Virtual Apr, 2022</li> <li>• DeepMath (2021), Virtual Nov, 2021</li> </ul>
	<b>Efficient Rare-Event Simulation for Multiple Jump Events in Regularly Varying Lévy Processes with Infinite Activities</b> <a href="#">[slides]</a> <ul style="list-style-type: none"> <li>• Winter Simulation Conference, Virtual Dec, 2020</li> <li>• INFORMS Annual Meeting, Virtual Nov, 2020</li> </ul>
TEACHING EXPERIENCE	<b>Instructor</b> <ul style="list-style-type: none"> <li>• IEMS Bootcamp (Probability) for PhD Students 2022 Fall, 2023 Fall</li> </ul>
	<b>Teaching Assistant</b> <ul style="list-style-type: none"> <li>• IEMS 317 Discrete Event Systems Simulation 2022 Winter; 2021 Winter</li> <li>• IEMS 315 Stochastic Models 2021 Spring, Fall; 2020 Spring, Fall</li> </ul>
	<b>Course Grader</b> <ul style="list-style-type: none"> <li>• OPNS 450 Decision models &amp; Prescriptive Analytics 2022 Winter</li> <li>• IEMS 435 Stochastic Simulation 2020 Winter</li> </ul>
PROFESSIONAL SERVICES	<ul style="list-style-type: none"> <li>• Reviewer, <i>INFORMS Journal on Computing</i>, <i>Winter Simulation Conference (WSC)</i></li> <li>• Webmaster, Stochastic Networks, Applied Probability, and Performance (SNAPP) seminar (2023)</li> <li>• Mentor, 1st-year mentorship program (2020,2021), NU INFORMS Student Chapter</li> </ul>
INDUSTRIAL EXPERIENCE	<b>Graduate Student Analytics Consultant</b> , Chicago Park District Chicago, IL Oct 2016 - May 2017
	<b>Data Analyst Intern</b> , 17zuoye (aka Homework Together, K12 education platform) Beijing, China Aug - Dec 2015

## REFERENCES

**Anton Braverman**, Assistant Professor of Operations at Kellogg School of Management, Northwestern University, [anton.braverman@kellogg.northwestern.edu](mailto:anton.braverman@kellogg.northwestern.edu)

**Barry Nelson**, Walter P. Murphy Professor Emeritus of Industrial Engineering and Management Sciences, Northwestern University, [nelsonb@northwestern.edu](mailto:nelsonb@northwestern.edu)

**Sewoong Oh**, Associate Professor of Allen School of Computer Science & Engineering, University of Washington, [sewoong@cs.washington.edu](mailto:sewoong@cs.washington.edu)

**Chang-Han Rhee**, Assistant Professor of Industrial Engineering and Management Sciences, Northwestern University, [chang-han.rhee@northwestern.edu](mailto:chang-han.rhee@northwestern.edu)