Yisu Remy Wang

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Education

Ph.D. Computer Science & Engineering University of Washington 2017-present B.S. Computer Science Tufts University 2013-2017

Employment

Research Assistant	University of Washington	Seattle, WA	2017-present
Research Intern	RelationalAI	Berkeley, CA	2021
Research Intern	VMWare Research	Palo Alto, CA	2019
Research Intern	Aarhus University	Aarhus, Denmark	2017
Student Researcher	Tufts University	Medford, MA	2015-2017
Student Researcher	Harvard University	Cambridge, MA	2016

Awards

Best Paper Award [1]	PODS	2022
Distinguished Paper Award [5]	OOPSLA	2021
Distinguished Paper Award [6]	POPL	2021
Microsoft Recruitment Award	University of Washington	2018
CRA Outstanding Undergraduate Researcher - Finalist	Tufts University	2016

Publications

- [1] Mahmoud Abo Khamis, Hung Q. Ngo, Reinhard Pichler, Dan Suciu, and **Yisu Remy Wang**. "Convergence of Datalog over (Pre-) Semirings". In: *PODS '22: International Conference on Management of Data, Philadelphia, PA, USA, June 12 17, 2022*. Ed. by Leonid Libkin and Pablo Barceló. ACM, 2022, pp. 105–117. DOI: 10.1145/3517804.3524140. URL: https://doi.org/10.1145/3517804.3524140.
- [2] Mahmoud Abo Khamis, Hung Q. Ngo, Reinhard Pichler, Dan Suciu, and **Yisu Remy Wang**. "Datalog in Wonderland". In: *SIGMOD Rec.* 51.2 (2022), pp. 6–17. DOI: 10.1145/3552490.3552492. URL: https://doi.org/10.1145/3552490.3552492.
- [3] Yisu Remy Wang, Mahmoud Abo Khamis, Hung Q. Ngo, Reinhard Pichler, and Dan Suciu. "Optimizing Recursive Queries with Program Synthesis". In: SIGMOD '22: International Conference on Management of Data, Philadelphia, PA, USA, June 12 17, 2022. Ed. by Zachary Ives, Angela Bonifati, and Amr El Abbadi. ACM, 2022, pp. 79–93. DOI: 10.1145/3514221.3517827. URL: https://doi.org/10.1145/3514221.3517827.

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[4] Yihong Zhang, Yisu Remy Wang, Max Willsey, and Zachary Tatlock. "Relational e-matching". In: *Proc. ACM Program. Lang.* 6.POPL (2022), pp. 1–22. DOI: 10.1145/3498696. URL: https://doi.org/10.1145/3498696.

- [5] Chandrakana Nandi, Max Willsey, Amy Zhu, Yisu Remy Wang, Brett Saiki, Adam Anderson, Adriana Schulz, Dan Grossman, and Zachary Tatlock. "Rewrite rule inference using equality saturation". In: *Proc. ACM Program. Lang.* 5.OOPSLA (2021), pp. 1–28. DOI: 10.1145/3485496. URL: https://doi.org/10.1145/3485496.
- [6] Max Willsey, Chandrakana Nandi, **Yisu Remy Wang**, Oliver Flatt, Zachary Tatlock, and Pavel Panchekha. "egg: Fast and extensible equality saturation". In: *Proc. ACM Program. Lang.* 5.POPL (2021), pp. 1–29. DOI: 10.1145/3434304. URL: https://doi.org/10.1145/3434304.
- [7] Yichen Yang, Phitchaya Mangpo Phothilimthana, Yisu Remy Wang, Max Willsey, Sudip Roy, and Jacques Pienaar. "Equality Saturation for Tensor Graph Superoptimization". In: *Proceedings of Machine Learning and Systems* 2021, MLSys 2021, virtual, April 5-9, 2021. Ed. by Alex Smola, Alex Dimakis, and Ion Stoica. mlsys.org, 2021. URL: https://proceedings.mlsys.org/paper/2021/hash/65ded5353c5ee48d0b7d48c591b8f430-Abstract.html.
- [8] Yisu Remy Wang, Shana Hutchison, Dan Suciu, Bill Howe, and Jonathan Leang. "SPORES: Sum-Product Optimization via Relational Equality Saturation for Large Scale Linear Algebra". In: *Proc. VLDB Endow.* 13.11 (2020), pp. 1919–1932. URL: http://www.vldb.org/pvldb/vol13/p1919-wang.pdf.
- [9] Yisu Remy Wang, Diogenes Nunez, and Kathleen Fisher. "Autobahn: using genetic algorithms to infer strictness annotations". In: *Proceedings of the 9th International Symposium on Haskell, Haskell 2016, Nara, Japan, September 22-23, 2016.* Ed. by Geoffrey Mainland. ACM, 2016, pp. 114–126. DOI: 10.1145/2976002.2976009. URL: https://doi.org/10.1145/2976002.2976009.

Teaching

Instructor

2017 History of Computing University of Washington

Teaching Assistant

2022	Advanced Topics in Data Management	University of Washington
2020	Scalable Data Systems and Algorithms	University of Washington
2020	Database Systems Internals	University of Washington
2019	Introduction to Data Management	University of Washington
2016-2017	Programming Languages	Tufts University

Services

Reviewing

- 1. LMCS 2023 Referee
- 2. SIGMOD 2023 Program Committee
- 3. CIKM 2022 Program Committee
- 4. EGRAPHS 2022 Program Committee
- 5. ICDT 2022 Sub-reviewer

Yisu Remy Wang

6. POPL 2022 Sub-reviewer

Department

UW Allen School Pre-Application Mentorship Service

UW Allen School New Students Mentor

UW Allen School Admission Application Reader

UW Allen School TGIF Chair

Professional Reference

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Zachary Tatlock University of Washington ztatlock@cs.washington.edu
Hung Q. Ngo RelationalAI hung.ngo@relational.ai
Reinhard Pichler TU Wien pichler@dbai.tuwien.ac.at