

# Xiating Ouyang

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RESEARCH INTERESTS     **Database systems and theoretical computer science:** Query processing and optimization, managing inconsistent data, algorithm design, complexity theory and graph theory.

EDUCATION     **University of Wisconsin–Madison**, Madison WI  
Ph.D. in Computer Science     2018 – present  
Advisor: Prof. Paraschos Koutris  
Thesis: *Finding Consistent Answers from Inconsistent Data: Systems, Algorithms, and Complexity*  
Minor in Mathematics  
M.Sc. in Computer Science     2018 – 2020  
**Hong Kong Polytechnic University**, Hong Kong  
B.Sc. in Computing (1st honor)     2014 – 2018  
**University of Waterloo**, Waterloo ON  
Exchange Program     Winter 2017

EMPLOYMENTS     **University of Wisconsin–Madison**, Madison WI     2019 – present  
Research Assistant  
**Meta Inc.**, Seattle WA     Summer 2022  
PhD Software Engineering Intern – System & Infra  
**Microsoft Gray Systems Lab, Azure Data**, Redmond WA     Summer 2020  
Research Intern  
Host: Alekh Jindal and Abhishek Roy  
**Thermo Fisher Scientific**, Madison WI     Summer 2019  
Software Engineering Intern  
**University of Wisconsin–Madison**, Madison WI     2018 – 2019  
Teaching Assistant  
**Hong Kong Polytechnic University**, Hong Kong     2015 – 2018  
Undergraduate Research Assistant

PUBLICATIONS     \*: alphabetical authorship following the tradition of theoretical computer science, †: equal contributions

**LinCQA: Faster Consistent Query Answering with Linear Time Guarantees.**

\* with Zhiwei Fan, Paraschos Koutris and Jef Wijsen.

*Proceedings of the ACM on Management of Data 1 (SIGMOD)*, 1, Article 38. [doi:10.1145/3588718](https://doi.org/10.1145/3588718)

**Consistent Query Answering for Primary Keys on Path Queries.**

\* with Paraschos Koutris and Jef Wijsen.

*Proceedings of the 40th ACM SIGMOD-SIGACT-SIGAI Symposium on Principles of Database Systems (PODS)*: 215–232, 2021. [doi:10.1145/3452021.3458334](https://doi.org/10.1145/3452021.3458334)

**SparkCruise: Workload Optimization in Managed Spark Clusters at Microsoft.**

Abhishek Roy, Alekh Jindal, Priyanka Gomatam, Xiating Ouyang, Ashit Gosalia, Nishkam Ravi, Swinky Mann and Prakhar Jain.

*Proceedings of the VLDB Endowment (PVLDB)*, 14(12): 3122–3134, 2021. [doi:10.14778/3476311.3476388](https://doi.org/10.14778/3476311.3476388)

**Unit interval vertex deletion: Fewer vertices are relevant.**

Yuping Ke, Yixin Cao, Xiating Ouyang, Wenjun Li and Jianxin Wang.

*Journal of Computer and System Sciences*, 96:109–121, 2018. [doi:10.1016/j.jcss.2018.01.001](https://doi.org/10.1016/j.jcss.2018.01.001)

**Consistent Query Answering for Simple Primary Keys on Rooted Tree Queries.\***

\* with Paraschos Koutris and Jef Wijsen. Manuscript.

**Certifiable Robustness for Naive Bayes Classifiers.**Song Bian<sup>†</sup>, Xiating Ouyang<sup>†</sup>, Zhiwei Fan and Paraschos Koutris. Manuscript.

HONORS AND AWARDS	Anthony C. Klug NCR Fellowship, UW-Madison	2022
	ACM-ICPC North Central North America Regional Contest, 10/208	2018
	UW-Madison CS Special Fellowship	2018
	Hong Kong PhD Fellowship (declined)	2018
	Hong Kong SAR Government Scholarship	2016, 2017, 2018
	Dean's Honors List, HK PolyU	2015, 2016, 2018
	Outstanding Student Award, Dept. of Computing, HK PolyU	2018
	ACM-HK Chapter Collegiate Programming Contest, 3/37	2017
	ACM-HK Chapter Collegiate Programming Contest, 3/34	2016
	CMA & Donars Scholarship	2016, 2017
	Hong Kong SAR Talent Development Scholarship	2015, 2017
	Hong Kong SAR Reaching Out Award	2017
	Wong Tit-Shing Student Exchange Scholarship	2017
	National High School Mathematics Competition, First Prize	2013
TALKS	LinCQA: Faster Consistent Query Answering with Linear Time Guarantees	
	◦ UW DB Seminar, 2022	
	◦ SIGMOD, 2023	
	Finding Consistent Answers from Inconsistent Data: Systems, Algorithms and Complexity.	
	◦ UW-Madison SACM/WACM Student Research Symposium, 2023	
	◦ <a href="#">UW DB Affiliates</a> , 2022	
	Consistent Query Answering for Primary Keys on Path Queries.	
	◦ <a href="#">UW DB Seminar</a> , 2021	
	◦ <a href="#">PODS</a> , 2021	
	Consistent Query Answering on Inconsistent Databases.	
SERVICES	◦ <a href="#">UW DB Affiliates</a> , 2021	
	First-order Logic, Database and Consistent Query Answering.	
	◦ <a href="#">Graduate Logic Seminar</a> , 2021	
	<b>Organizer:</b> UW-Madison DB Seminars	2022–present
	<b>Volunteer:</b> VLDB'21	
	<b>Webmaster:</b> COCOON'17	
	<b>Student organizer:</b> SMARTCOMP'17, COCOON'17	
	<b>Judge:</b> Departmental programming contest, UW–Madison	2019
	<b>Coach:</b> ACM-ICPC team, HK PolyU	2017 – 2018
TEACHING EXPERIENCES	<b>Vice president:</b> Exploring Hong Kong Community	2015 – 2016
	TA: CS 577 Introduction to Algorithms, UW–Madison	Spring 2019
	TA: CS 240 Discrete Mathematics, UW–Madison	Fall 2018
	TA: COMP 2422 Database Systems, HK PolyU	Fall 2017
SKILLS		
	<b>Programming languages:</b> C/C++/C#, Python, Java, PHP, JavaScript, SQL, Datalog	
	<b>Operating systems:</b> Linux(Ubuntu), MacOS, Windows	
	<b>Tools:</b> git, Spark, $\text{\LaTeX}$	
	<b>Languages:</b> English (proficient), Mandarin (native) and Cantonese (intermediate)	