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Yuan Qiu

Postdoctoral Fellow

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EDUCATION

Ph.D. in Computer Science and Engineering , Hong Kong University of Science and Technology <i>Thesis: Constructing Synopsis for Query Answering, supervised by Prof. Ke Yi</i> <i>Hong Kong PhD Fellowship</i>	Sept 2019 — Aug 2022
M.Phil. in Computer Science and Engineering , Hong Kong University of Science and Technology <i>Thesis: Towards Online Aggregation for SPJ Queries, supervised by Prof. Ke Yi</i> <i>Postgraduate Studentship</i>	Sept 2017 — Aug 2019
B.Sc. in Math and Economics, and in Computer Science , Hong Kong University of Science and Technology <i>First Class Honors, Academic Excellence Award, Academic Achievement Medal</i>	Sept 2013 — Aug 2017
International Exchange Program , Stony Brook University, USA	Sept 2016 — Dec 2016

PUBLICATIONS

- Yuan Qiu**, Wei Dong, Ke Yi, Bin Wu and Feifei Li. “Releasing Private Data for Numerical Queries.” ACM SIGKDD Conference on Knowledge Discovery and Data Mining (**SIGKDD**), 2022.
- Ziyue Huang, **Yuan Qiu**, Ke Yi and Graham Cormode. “Frequency Estimation Under Multiparty Differential Privacy: One-shot and Streaming.” International Conference on Very Large Databases (**VLDB**), 2022.
- Yuan Qiu**, Yilei Wang, Ke Yi, Feifei Li, Bin Wu and Chaoqun Zhan. “Weighted Distinct Sampling: Cardinality Estimation for SPJ Queries.” ACM SIGMOD International Conference on Management of Data (**SIGMOD**), 2021.
- Yuan Qiu**, Serafeim Papadias and Ke Yi. “Streaming HyperCube: A Massively Parallel Stream Join Algorithm.” International Conference on Extending DataBase Technology (**EDBT**), 2019.

WORK EXPERIENCE

Postdoctoral Fellow Hong Kong University of Science and Technology	Jan 2024 — Present Hong Kong SAR, China
<ul style="list-style-type: none">• Researched on problems related to secure and private query processing.	
Big Data Engineer ByteDance	Sept 2022 — Sept 2023 Hangzhou, China
<ul style="list-style-type: none">• Worked on feature development for ByteHouse, a commercial version of the ClickHouse database system.• Researched on cross-platform workload analysis and diagnosis, and implemented prototypes for workload optimizations.• Implemented row-store feature for E-MapReduce Serveless StarRocks product.	
Intern Engineer Alibaba Cloud	Apr 2021 — Aug 2021 Hangzhou, China
<ul style="list-style-type: none">• Implemented data sketching algorithms into AnalyticDB database optimizer.• Researched on database optimization problems, including AI-based and adaptive query optimization.	
Intern Engineer Alibaba Cloud	Jan 2019 — May 2019 Hangzhou, China
<ul style="list-style-type: none">• Implemented approximate query processing algorithms into AnalyticDB database optimizer.• Researched on cardinality estimation problems, including join size estimation and distinct value counting.	

SKILLS

Communication	Mandarin (native), English (fluent), Cantonese (basic)
Programming	Java (proficient), C++ (proficient), SQL (proficient), Scala (intermediate), Python (intermediate)
Tools	Git, Unix, Emacs, Latex

AWARDS

Hong Kong PhD Fellowship, Hong Kong Research Grants Council	2019 – 2022
Postgraduate Studentship, Hong Kong University of Science and Technology	2017 – 2019
Reaching Out Award, Hong Kong Government Scholarship Fund	2017
Chern-Class Achievement Scholarship, Hong Kong University of Science and Technology	2017
First Runner-Up in UG Math Competition, Hong Kong University of Science and Technology	2017
The Cheng Foundation Scholarship, Cheng Foundation	2015 — 2016
Kerry Holdings Limited Scholarship, Kerry Holdings Limited	2013 — 2015