

Chao Zhang

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EXPERIENCE

- **Claude Bernard University Lyon 1, LIRIS** Villeurbanne, France
Postdoctoral researcher, conducting research in the area of graph query processing. Jan. 2021 - Aug. 2022
 - **RLC Index:** RLC Index is a reachability index for processing graph queries with a concatenation of edge labels under the Kleene operator.
- **CNRS** Aubière, France
Postdoctoral researcher, conducting research in the area of stream processing. Feb. 2020 - Dec. 2020
 - **PBA:** PBA is a parallel algorithm to compute sliding window aggregations over a data stream.

EDUCATION

- **University of Clermont Auvergne** Clermont Ferrand, France
Ph.D., Computer Science Nov. 2015 – Nov. 2019
- **Harbin Institute of Technology & L'ISIMA** Harbin, China & Clermont Ferrand, France
M.Sc., Software Engineering Sept. 2013 – Sept. 2015
- **Shenyang University of Technology** Shenyang, China
B.Sc., Telecommunication Engineering Sept. 2009 – July. 2013

RESEARCH AREAS

Graph Query Processing; Stream Processing; Query Rewriting.

PUBLICATIONS

- **Chao Zhang**, Reza Akbarinia and Farouk Toumani. Efficient Incremental Computation of Aggregations over Sliding Windows. In *Proceedings of the 27th ACM SIGKDD Conference on Knowledge Discovery & Data Mining*, pages 2136-2144, 2021.
- **Chao Zhang**, Farouk Toumani and Bastien Doreau. SUDAF: Sharing User-Defined Aggregate Functions. In *IEEE 36th International Conference on Data Engineering (ICDE)*, pages 1750-1753, 2020.
- **Chao Zhang** and Farouk Toumani. Sharing Computations for User-Defined Aggregate Functions. In *Proceedings of the 23rd International Conference on Extending Database Technology (EDBT)*, pages 241-252, 2020.
- **Chao Zhang**. Symmetric and Asymmetric Aggregate Functions in Massively Parallel Computing. In *PhD@VLDB*, 2017.

TECHNICAL REPORTS

- **Chao Zhang**, Angela Bonifati, Hugo Kapp, Vlad Ioan Haprian, and Jean-Pierre Lozi. A Reachability Index for Recursive Label-Concatenated Graph Queries. *Under review, 2022.*
- **Chao Zhang**, Reza Akbarinia and Farouk Toumani. Incremental Boundary Aggregators over Siding Windows. *Under review, 2022.*
- **Chao Zhang** and Farouk Toumani. Sharing Queries with Nonequivalent User-Defined Aggregate Functions. *Under submission, 2022.*

RESEARCH ACTIVITIES

- Conference: PVLDB 2023 Program Committee; SIGMOD 2022 Program Committee; BDA 2021 Demo Program Committee.
- Journal: I have reviewed papers for ACM TODS and VLDB Journal.

TEACHING

- Instructor: Semantic Web at the University of Clermont Auvergne (labs, 14 hours, Fall 2021).
- Instructor: Big Data Processing at the University of Clermont Auvergne (lectures, 16 hours, Spring 2022).

AWARDS

- Prix du meilleur article BDA 2021.
- Prix de thèse (runner-up) BDA 2020.
- Full scholarship in the 1st BigSkyEarth training school in DLR, Germany, April 4th-9th, 2016.

SKILLS

- Programming Languages: SQL, Java/Scala, C, Python.
- Systems: Oracle PGX, Apache Spark, Apache Flink, PostgreSQL.
- Languages: English (proficient), French (intermediate), Chinese (mother tongue).