Zhongjun "Mark" Jin

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Research Interests

EDUCATION

Interactive data analytics, visualization, integration systems.

Aug. 2014 - May 2020

University of Michigan, Ann Arbor, MI, USA Ph.D., Computer Science and Engineering

• Advisor: Prof. Michael Cafarella and Prof. H. V. Jagadish

• Dissertation: Democratizing Self-Service Data Preparation through Example Guided Program Synthesis

Purdue University, West Lafayette, IN, USA

Aug. 2011 - May 2014

B.S. in Computer Science, Mathematics

Tianjin University, Tianjin, China

Aug. 2009 - Jul. 2011

Electronic Information Science

Professional EXPERIENCE

TikTok, Mountain View, CA

Jul 2020 - Now

Senior Software Engineer

Query Engine and Database Technologies

Microsoft Research, Redmond, WA

Feb 2019 - May 2019

Research Intern (Mentored by Yeye He)

Designed and implemented a system (like the seminal FlashFill system) recommending string data transformation programs which standardize or normalize regular-expression-like data patterns for a given set of string data (like phone numbers, or dates) with heterogeneous data patterns. Unlike most existing systems, which synthesize programs in real time, the recommended programs in our system are learned offline from a large corpus of web data and of higher quality.

Trifacta, San Francisco, CA

May 2017 - Sep. 2017

Software Engineering Intern (Mentored by Sean Kandel, Michael Minar, and Joe Hellerstein)

Designed and implemented CLX, an interactive data cleaning system. CLX 1) automatically identifies regular-expression-like data patterns for a given set of string data with heterogeneous data patterns for non-expert users to understand, and 2) suggests pattern-based transformation programs to unify various data patterns. The work was integrated to Trifacta Cloud Wrangler as a main feature in Aug 2018 and available at https://cloud.trifacta.com/.

Conference and Workshop papers

- 1. Identifying Insufficient Data Coverage for Ordinal Continuous-Valued Attributes Abolfazl Asudeh, Nima Shahbazi, **Zhongjun Jin**, H. V. Jagadish SIGMOD 2021
- 2. Auto-Transform: Learning-to-Transform by Patterns Zhongjun Jin, Yeye He, Surajit Chauduri VLDB 2020

- 3. Duoquest: A Dual-Specification System for Expressive SQL Queries Christopher Baik, **Zhongjun Jin**, Michael Cafarella, and H. V. Jagadish SIGMOD 2020
- MithraCoverage: A System for Investigating Population Bias for Intersectional Fairness Zhongjun Jin, Mengjing Xu, Chenkai Sun, Abolfazl Asudeh, H. V. Jagadish SIGMOD 2020
- Constructing Expressive Relational Queries with Dual-Specification Synthesis.
 Christopher Baik, Zhongjun Jin, Michael Cafarella, H. V. Jagadish.
 10th Conference on Innovative Data Systems Research (CIDR 2020), Amsterdam, Netherlands,
 2020
- Disambiguating Queries in Conversational Interface.
 Christopher Baik, Zhongjun Jin, Michael Cafarella.
 Proceedings of the Conversational Access to Data Workshop (CAST @ VLDB 2019), Los Angeles, 2019
- Assessing and Remedying Coverage for a Given Dataset.
 Abolfazl Asudeh, Zhongjun Jin, H. V. Jagadish.
 35th IEEE International Conference on Data Engineering (ICDE 2019), Macau, China, 2019
- CLX: Towards verifiable PBE data transformation.
 Zhongjun Jin, Michael Cafarella, H. V. Jagadish, Sean Kandel, Michael Minar, Joseph M. Hellerstein.
 22nd International Conference on Extending Database Technology (EDBT 2019), Lisbon, Portugal, 2019
- 9. Demonstration of a Schema Mapping System Using Multiresolution Constraints. **Zhongjun Jin**, Christopher Baik, Michael Cafarella, H. V. Jagadish, Yuze Lou. 9th Biennial Conference on Innovative Data Systems Research (CIDR 2019), Asilomar, CA, 2019
- Beaver: Towards a Declarative Schema Mapping.
 Zhongjun Jin, Christopher Baik, Michael Cafarella, H. V. Jagadish.
 Proceedings of the 3rd Workshop on Human-In-the-Loop Data Analytics (HILDA @ SIGMOD 2018), Houston, TX, 2018
- Foofah: Data Transformation By Example.
 Zhongjun Jin, Michael R Anderson, Michael Cafarella, H. V. Jagadish.
 Proceedings of the 2017 ACM SIGMOD International Conference on Management of Data (SIGMOD 2017), Chicago, IL, 2017
- Foofah: A Programming-By-Example System for Synthesizing Data Transformation Programs. (demo, selected as Best of Demos)
 Zhongjun Jin, Michael R Anderson, Michael Cafarella, H. V. Jagadish.
 Proceedings of the 2017 ACM SIGMOD International Conference on Management of Data (SIGMOD 2017), Chicago, IL, 2017
- Privacy Preserving Access Control in Service-Oriented Architecture.
 Rohit Ranchal, Bharat K. Bhargava, Ruchith Fernando, Hui Lei, **Zhongjun Jin**.
 IEEE International Conference on Web Services (ICWS 2016), San Francisco, CA, 2016.
- 14. A Self-Cloning Agents Based Model for High-Performance Mobile-Cloud Computing. Pelin Angin, Bharat Bhargava, **Zhongjun Jin**.

Cloud Computing, 2015 IEEE 8th International Conference (CLOUD 2015), New York, 2015.

PATENTS

1. Automatic transformation of data by patterns. Yeye He, Surajit Chaudhuri, **Zhongjun Jin**. Patent # US 20210374134A1 12/2021

Honors and Awards

- 1st Prize in "Systems, Software Engineering and Computer Science" session in *Michigan Engineering Graduate Symposium 2017 (EGS 2017)*, 2017.
- Selected as "Best of Demos" at SIGMOD 2017.
- Sigmod Travel Award, 2017.
- University of Michigan Departmental PhD Fellowship, 2014.
- Outstanding Undergraduate Research Endeavor Award, Purdue Computer Science Dept, 2014
- Purdue Computer Science Neel Memorial Scholarship, 2013
- Purdue Computer Science Departmental Scholarship, 2012

INVITED TALKS

 \bullet "Intelligent Self-service Data Preparation: Problems and Solutions", 11/15/2018, Llamasoft Inc., USA.

SERVICE

- Program Comittee: ICDE'23 (9 reviews by 08/29/2022; 12 reviews expected by the end of 2022)
- Reviewer: SoCC'19 (1 review)

References

Michael Cafarella
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H. V. Jagadish
Professor
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