Zhongjun Jin (Mark)

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RESEARCH Interests

EDUCATION

Improving human-in-the-loop data preparation using a combination of AI, HCI and PL techniques.

University of Michigan, Ann Arbor, MI, USA

Aug. 2014 - present

Ph.D. Candidate, Computer Science and Engineering

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

Purdue University, West Lafayette, IN, USA

Aug. 2011 - May 2014

B.S. in Computer Science, Mathematics, GPA 3.85

Tianjin University, Tianjin, China (Top 5 in Engineering)

Aug. 2009 - Jul. 2011

Electronic Information Science

RESEARCH EXPERIENCE University of Michigan, Ann Arbor, MI, USA

Supervised by Prof. Michael Cafarella and Prof. H. V. Jagadish

Improving the Usability of Data Integration Systems

Jan. 2017 - now

• Developing a schema mapping synthesis technique adapted to various user constraints.

Improving the Usability of Data Transformation Systems

Jan. 2015 - Nov. 2016

- Developed a combinatorial-search-based programming-by-example program synthesis technology, Foofah, for data transformation/wrangling.
- Foofah resolves 90% real-world data transformation/wrangling tasks costing 60% less user effort than the state-of-the-art Wrangler system from Stanford.

Purdue University, West Lafayette, IN, USA

Supervised by Prof. Bharat Bhargava, Dr. Rohit Ranchal, Dr. Pelin Angin

Mobile Cloud Computing and Secure Data Sharing.

Aug. 2013 - May 2014

• Designed and implemented applications for proof of concept and performed the experiments.

Conference and Workshop papers

1. CLX: Towards a scalable and comprehensible design of PBE data transformation. (under review)

Zhongjun Jin, Michael Cafarella, H. V. Jagadish, Sean Kandel, Michael Minar, Joseph M. Hellerstein.

2. 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

3. 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

4. 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.
- 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.

MISCELLANY

poster- Privacy Preserving Access Control in Service Oriented Architecture.
Rohit Ranchal, Ruchith Fernando, **Zhongjun Jin**, Pelin Angin, Bharat Bhargava.

Proceedings of the 15th Annual Information Security Symposium, West Lafayette, IN, 2014.

SOFTWARE ENGINEERING EXPERIENCE

Trifacta, San Francisco, CA

May 2017 - Sep. 2017

Software Engineering Intern (Supervised by Dr. Sean Kandel and Dr. Michael Minar) Designed and implemented a Programming-By-Example text format standardization framework for Trifacta Wrangler, which infers explainable, configurable string transformation programs costing 30%-70% less user effort than the state-of-the-art system FlashFill from Microsoft Research.

Qualcomm, San Diego, CA

May 2013 - Aug. 2013

Software Engineering Intern

Integrated Functional Tests into ASIA Test Automation System Using Perl Scripting Language.

Delphi Electronics and Safety Lab, West Lafayette, IN

May 2012 - May 2013

Part-time Software Verification Engineer Intern

Created New Features for DOORS Standard Control System using DXL Scripting Language.

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 Rackham Travel Grant, 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