

YIN (IRENE) LIN

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EDUCATION

University of Michigan, Ann Arbor

Ph.D. student in Computer Science and Engineering

Advisor: [Prof. H. V. Jagadish](#)

Ann Arbor, MI

Sept. 2019 – present

Shanghai Jiao Tong University (SJTU)

B.S. in Computer Science, Department of Computer Science

GPA: 3.76/4.0

Shanghai, China

Sept. 2015 – June 2019

University of Waterloo

Research Intern in Software Architecture Group (Advisor: [Prof. Meiyappan Nagappan](#))

Ontario, Canada

July 2018 – Oct. 2018

PUBLICATIONS

Yin Lin, Xinyi Chen, Xiaofeng Gao, Bin Yao, Guihai Chen, *R²-Tree: An Efficient Indexing Scheme for Data Center Networks*, in *the 29th International Conference on Database and Expert Systems Applications (DEXA), 2018* (Oral, Acceptance Rate 21.88%, 35/160).

RESEARCH EXPERIENCES

Scalable R-Tree based Indexing for Server-Centric Cloud Storage Systems

Dec. 2016 – Feb. 2018

Shanghai Jiao Tong University – Advisor: [Prof. Xiaofeng Gao](#)

- Proposed a scalable R-Tree based indexing scheme for high dimensional data in data centers. Utilized R-Tree to support point, range query and used Bloom filter to reduce the false positives.
- Formulated a general definition for server-centric data center topologies and employed the two-layer indexing framework to maintain a global index layer above the structured overlay.
- Validated the indexing scheme in up to 64 instances and three different data center topologies.

Automatic Index Tuning in Data Management Systems

Aug. 2018 - June 2019

Advisor: [Prof. Xiaofeng Gao](#), [Bo Gao](#)

- Use machine learning to predict database statistics and data distribution in the storage system. Automatically reconstruct the indexes to speed up query processing.
- Investigate the learned index structures to replace the traditional B-Trees, Hash-maps, and Bloom filters.

Software Development Tools & Android SDKs

June 2018 – Oct.2018

University of Waterloo – Advisor: [Prof. Meiyappan Nagappan](#)

- Analyzed coding tools proposed in ICSE 2014-2018. Defined a criterion to classify the tools by their functions and developing scenarios, providing keyword search support for the tools in our tool repository.
- Conducted an A/B test and built a survey website to investigate the optimal mobile ads usage pattern. This test provides guidance for developers using Google Mobile Ads SDK.

TEACHING EXPERIENCES

CS499, Mathematical Foundations of Computer Science, SJTU

Spring 2018

Teaching Assistant. Instructor: [Prof. Dominik Scheder](#)

CONTESTS & AWARDS

Outstanding Undergraduates in Shanghai Jiao Tong University

June 2019

Meritorious Winner, Mathematical Contest in Modeling *twice, top 8% worldwide*

2017, 2018

Chun Tsung Scholar *50/2400 in SJTU, funded by Nobel Prize owner Tsung-Dao Lee*

2016

Academic Scholarship *top 10% in SJTU*

2016 – 2018