# Zheguang Samuel Zhao

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United States of America Github: https://github.com/zheguang

### Research

I am interested in the theories and designs of big data systems that are intelligent and safe. My current study focuses on efficient encrypted SQL for provable security. In the past, I have also dabbled in constraint learning for puzzle solving AI, false discovery control in data science, approximate data structures for visualization, database design on hybrid and non-volatile memory, consistency control for stochastic machine learning algorithms, and searchable encryption on mobile text messaging.

#### Education

Ph.D. Candidate in Computer Science, Brown University, expected 2019.

Advisor: Prof. Stan Zdonik, Prof. Seny Kamara

M.S. in Computer Science, Brown University, 2016.

Advisor: Prof. Stan Zdonik

B.S. in Computer Science, University of Wisconsin at Madison, 2012.

Advisor: Prof. Jignesh Patel

## Experiences

Brown University, RI

Research Assistant, 2014 – present.

Teaching Assistant, 2015.

Microsoft AI & Research, WA, Research Intern, 2017.

Intel Labs, CA, Research Intern, 2015.

Hadapt (Acquired by Teradata), MA, Software Engineer, 2013 – 2014.

Kosmix (Acquired by @WalmartLabs), CA, Software Engineer Intern, 2012.

Great Lakes Bioenergy Research Center, WI, Software Engineer Intern, 2010 – 2012.

### Honors

Eta Kappa Nu

Upsilon Pi Epsilon

Golden Key International Honour Society

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### **Articles**

Signal Search.

J. Engelman, S. Kamara, T. Moataz and S. Zhao,

Software release: http://github.com/encryptedsystems/Searchable-Signal-Android.

Press release: http://esl.cs.brown.edu/blog/signal, April 2017.

Controlling False Discoveries During Interactive Data Exploration.

Z. Zhao, L. De Stefani, E. Zgraggen, C. Binnig, E. Upfal and T. Kraska, SIGMOD, May 2017.

Safe Visual Data Exploration.

Z. Zhao, E. Zgraggen, L. De Stefani, C. Binnig, E. Upfal and T. Kraska, SIGMOD Demo, May 2017.

Bridging the Gap between HPC and Big Data frameworks.

M. Anderson, S. Smith, N. Sundaram, M. Capota, Z. Zhao, S. Dulloor, N. Satish and T. Willke, VLDB, 2017.

Towards Sustainable Insights.

C. Binnig, L. De Stefani, T. Kraska, E. Upfal, E. Zgraggen and Z. Zhao, CIDR, January 2017.

Towards a Benchmark for Interactive Data Exploration.

P. Eichmann, E. Zgraggen, Z. Zhao, C. Binnig, T. Kraska.

IEEE Data Engineering Bulletin, 2016.

Larger-than-memory Data Management on Modern Storage Hardware for In-memory OLTP Database Systems. L. Ma, J. Arulraj, S. Zhao, A. Pavlo, S. Dulloor, M. Giardino, J. Parkhurst, J. Gardner, K. Doshi and S. Zdonik,

DaMoN, June 2016.

VisTrees: Fast Indexes for Interactive Data Exploration.

M. El-Hindi, Z. Zhao, C. Binnig and T. Kraska,

HILDA, June 2016.

Data Tiering in Heterogeneous Memory Systems.

S. Dulloor, A. Roy, Z. Zhao, N. Sundaram, N. Satish, R. Sankaran, J. Jackson and K. Schwan, EuroSys, April 2016.