

# Zheguang Samuel Zhao

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## Research

I am interested in using mathematics to design intelligent and safe systems for data processing. My study focuses controlling false discovery in data science. I also study encrypted SQL databases for provable security. In the past, I have also dabbled in approximate data structures for visualization, database design on hybrid and non-volatile memory, consistency control for stochastic machine learning algorithms, and symmetric searchable encryption on mobile text messaging.

## Education

Ph.D. Candidate in Computer Science, Brown University, expected 2019.  
Advisor: Prof. Tim Kraska

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

Research Assistant at Brown University, RI, 2014 – now.

Teaching Assistant at Brown University, RI, 2015.

Research Intern at Intel Labs, CA, 2015.

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

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

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

## Honors

Eta Kappa Nu

Upsilon Pi Epsilon

Golden Key International Honour Society

## Articles

*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.

*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.