

EDUCATION

Ph.D. in Computer Science

2019 (expected)

National University of Singapore, Singapore (NUS)*

Supervisor: Prof. Bingsheng He

*: 2014~2016 in Nanyang Technological University with the same supervisor

B.E(hons) in Computer Engineering

Aug 2014

Nanyang Technological University (NTU), Singapore (GPA 4.83/5)

AWARDS

- Research Achievement Award (NUS) 2018 – 2019
- SIGMOD 2019 Travel Award 2019
- SAP PhD Research Scholarships 2014 – 2018
- Research Achievement Award (NUS) 2017 – 2018
- Dean's list student (NTU) 2010 – 2013
- Best peer tutor/coach awards (NTU) 2012 – 2013
- AY11-12 URECA Certificate (NTU) 2011 – 2012
- Senior Middle 3 Singapore Government Undergraduate Scholarship 2010 – 2014

PUBLICATIONS

1. Jieliang Ang, Tianyuan Fu, Johns Paul, **Shuhao Zhang**, Bingsheng He, Teddy Sison David Wenceslao, Sien Yi Tan, "TraV: An Interactive Trajectory Exploration System For Massive Data Sets" *To appear in IEEE BIGMM (demo), 2019*
2. **Shuhao Zhang**, Feng Zhang, Yingjun Wu, Paul Johns, Bingsheng He, "Hardware-Conscious Stream Processing: A Survey" *To appear in SIGMOD Record, 2019*
3. **Shuhao Zhang**, Jiong He, Amelie Chi Zhou, Bingsheng He, "BriskStream: Scaling Data Stream Processing on Shared-Memory Multicore Architectures" *SIGMOD, 2019*
4. **Shuhao Zhang**, Bingsheng He, Daniel Dahlmeier, Amelie Chi Zhou, Thomas Heinze, "Revisiting the design of data stream processing systems on multi-core processors" *ICDE, 2017*
5. **Shuhao Zhang**, Hoang Tam Vo, Daniel Dahlmeier, Bingsheng He, "Multi-Query Optimization for Complex Event Processing in SAP ESP" *ICDE, 2017*
6. Feng Zhang, Jidong Zhai, Bingsheng He, **Shuhao Zhang**, Wenguang Chen, "Understanding Co-running Behaviors on Integrated CPU/GPU Architectures" *TPDS, 2017*
7. Shanjiang Tang, Bingsheng He, **Shuhao Zhang**, Zhaojie Niu, "Elastic Multi-Resource Fairness: Balancing Fairness and Efficiency in Coupled CPU-GPU Architectures" *SC, 2016*.
8. Zeke Wang, **Shuhao Zhang**, Bingsheng He, Wei Zhang, "Melia: A MapReduce Framework on OpenCL-Based FPGAs" *IEEE TPDS, 2016*.
9. Feng Zhang, Jidong Zhai, Wenguang Chen, Bingsheng He, **Shuhao Zhang**, "To Co-run, or Not to Co-run: A Performance Study on Integrated Architectures" *MASCOTS (short-paper), 2015*.
10. Jiong He, **Shuhao Zhang**, Bingsheng He, "In-Cache Query Co-Processing on Coupled CPU-GPU Architectures", *VLDB, 2014*.
11. **Shuhao Zhang**, Jiong He, Bingsheng He, Mian Lu, "OmniDB: Towards Portable and Efficient Query Processing on Parallel CPU/GPU Architectures" *VLDB (demo) 2013*.

PATENTS

1. **Shuhao Zhang**, Bingsheng He, Daniel Hermann Richard Dahlmeier, "Efficient execution of data stream processing systems on multi-core processors", *US Patent App. 15/348,932*, 2018.
2. **Shuhao Zhang**, Hoang Tam Vo, Daniel Hermann Richard Dahlmeier, Bingsheng He, "Multi-query optimizer for complex event processing", *US Patent App. 9,953,056*, 2018.

WORK EXPERIENCE

Research Fellow/Assistant

Aug 2018 – present

NUS-Grab AI Lab Singapore

My research involves investigating new opportunities to enhance real-time trajectory data management including design of scalable trajectory query processing systems.

Research Associate (Ph.D scholars)

Aug 2014 – Aug 2018

Research & Innovation, SAP Singapore

My research involves investigating new opportunities to enhance complex event processing including design of new framework with related techniques and software modules.

Two patents filed.

Research Assistant (Internship)

Jun 2012 – Aug 2013

Division of DCT, Data Storage Institute

Contributed on various projects of cloud security area.