Chen Luo

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Education

University of California, Irvine, CA   *Sept. 2016–Dec. 2020*
Ph.D. in Computer Science. Supervisor: Michael J. Carey   GPA: 4.00/4.00
Thesis: On Optimizing LSM-based Storage for Big Data Management Systems

Tsinghua University, China   *Sept. 2013–July 2016*
M.Eng. in Software Engineering   GPA: 94.1/100 (2 out of 136)

Tongji University, China   *Sept. 2009–July 2013*
B.Eng. in Software Engineering   GPA: 4.72/5 (2 out of 169)

Work Experience

Software Engineer, Snowflake Inc.   *01/11/2011–Present*
o Manager: Leonidas Galanis
o Address: 450 Concar Dr, San Mateo, CA 94402
o Working on the OLTP (On-Line Transactional Processing) project to extend Snowflake to support OLTP workloads
o Participating the full software development lifecycle, including design, implementation, testing, and deployment
o Technical areas include key-value stores, distributed transactions, data replication, and query processing etc.

Research Intern, Microsoft   *06/24/2019–09/13/2019*
o Mentor: David Lomet
o Address: 1 Microsoft Way, Redmond, WA 98052
o Built a customized SSD controller to support batched writes and variable-size pages **[ICDE 2021]**
o Optimized a novel cleaning algorithm for log-structured stores that substantially reduced cleaning overheads

Research Intern, IBM Almaden Research Center   *06/26/2017–09/15/2019*
o Mentor: Pinar Tozun, Yuanyuan Tian, Manager: Fatma Ozcan
o Address: 650 Harry Rd, San Jose, CA 95120
o Designed and implemented a unified multi-zone indexing method for evolving data in HTAP systems **[EDBT 2019]**

Software Developer Intern, eBay China Development Center   *07/02/2012–03/29/2013*
o Manager: William Li
o Address: 88 Keyuan Road, Shanghai, China, 201203
o Participated in the development of eBay's web application framework
o Redeveloped the internal web traffic analytics system with MapReduce

Selected Publications

[1] **Chen Luo**, Michael J. Carey. Breaking down memory walls: adaptive memory management for LSM-based storage systems. *PVLDB*, 14(3), pp. 241–254, 2021

[2] Jae Young Do, **Chen Luo**, and David B. Lomet. Programming an SSD controller to support batched writes for variable-size pages. *ICDE*, 2021, to appear

[3] **Chen Luo**, Michael J. Carey. LSM-based storage techniques: a survey. *VLDB Journal*, 29 (1), pp. 393–418, 2020

[4] **Chen Luo**, Michael J. Carey. On performance stability in LSM-based storage systems. *PVLDB*, 13(4), pp. 449–462, 2019

[5] **Chen Luo**, Michael J. Carey. Efficient data ingestion and query processing for LSM-based storage systems. *PVLDB*, 12(5), pp. 531–543, 2019

[6] **Chen Luo**, Pinar Tozun, Yuanyuan Tian, Ronald Barber, Vijayshankar Raman, and Richard Sidle. Umzi: Unified Multi-Zone Indexing for Large-scale HTAP. *EDBT*, pp. 1–12, 2019