Chenggang Wu

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EDUCATION

University of California, Berkeley

- Doctor of Philosophy (Ph.D.) in Computer Science — Aug 2015 – Present
  - Adviser: Joseph M. Hellerstein
  - Research areas: Data-centric Systems, Distributed Systems, Machine Learning

Brown University

- Bachelor of Science (B.S.) in Computer Science — May 2015
  - Magna cum laude with Honors in Computer Science.
  - Cumulative GPA: 4.0 / 4.0

RESEARCH EXPERIENCE

RISE Lab, UC Berkeley — Sep 2016 – Present

- Fluent: a declarative programming framework for building distributed systems.
- Anna: a super-fast, flexibly consistent, autoscaling and cost-effective Key-Value Store.

CISL Lab, Microsoft — May 2017 – Oct 2018

- CardLearner: a system that learns cardinality models from previous query executions and uses them to aid the query optimizer in predicting the cardinalities of future queries.

Data Management Research Group, Brown University — Jan 2014 – May 2015

- S-Store: a transactional stream processing system that simultaneously accommodates OLTP workload and streaming applications.
- Seer: a predictive prefetching and caching middleware for supporting exploratory visualization of big data.

PUBLICATIONS

[1] **Chenggang Wu**, Jose Faleiro, Yihan Lin, Joseph M. Hellerstein,
"Anna: A KVS For Any Scale,"
TKDE 2019 (to appear), "Best of ICDE 2018" Special Issue.

[2] **Chenggang Wu**, Vikram Sreekanti, Joseph M. Hellerstein,
"Eliminating Boundaries in Cloud Storage with Anna,"
VLDB 2019 (to appear).

[3] Joseph M. Hellerstein, Jose Faleiro, Joseph E. Gonzalez, Johann Schleier-Smith,
Vikram Sreekanti, Alexey Tumanov, **Chenggang Wu**,
"Serverless Computing: One Step Forward, Two Steps Back,"
CIDR 2019.

[4] **Chenggang Wu**, Alekh Jindal, Saeed Amizadeh, Hiren Patel,
Wangchao Le, Shi Qiao, Sriram Rao,
"Towards a Learning Optimizer for Shared Clouds,"
VLDB 2019.

[5] **Chenggang Wu**, Jose Faleiro, Yihan Lin, Joseph M. Hellerstein,
"Anna: A KVS For Any Scale,"
ICDE 2018, Best of Conference Selection.

INVITED TALKS

"Eliminating Boundaries in Cloud Storage with Anna"
  - Alibaba Group, October 2018
  - RISE Lab Retreat, May 2018
  - Amazon Web Services, May 2018

"Towards a Learning Optimizer for Shared Clouds"
  - Microsoft, August 2017

"Anna: A KVS For Any Scale"
- Alibaba Group, October 2018
- RISE Lab Retreat, May 2018
- Amazon Web Services, May 2018
- ICDE 2018, April 2018

PROFESSIONAL SERVICES

Reviewer for TKDE 2019.

U.C. Berkeley EECS Graduate Admissions Committee Member.

Organizer of Database Seminar for Berkeley Database Group.

TEACHING

Graduate Student Instructor, UC Berkeley
- CS186/286A: Introduction to Database Systems, Spring 2018
  - with Prof. Mehul Shah
- CS186/286A: Introduction to Database Systems, Spring 2016
  - with Prof. Joseph E. Gonzalez and Prof. Joseph M. Hellerstein

Head Teaching Assistant, Brown University
- CS1951A: Introduction to Data Science, Spring 2015
  - with Prof. Tim Kraska
- CS1270: Database Management Systems, Fall 2014
  - with Prof. Stan Zdonik

ACADEMIC AWARDS

Computing Research Association Outstanding Undergraduate Researchers Award - Nominee, Brown University
- Awarded to the top three students in the computer science department based on research contributions.

TECHNICAL BACKGROUND

Advanced Coursework: Artificial Intelligence, Databases, Data Science, Distributed Systems, Machine Learning, Parallel Computing, Programming Languages & Compilers, Algorithms , Systems Security.

Programming: C/C++, Python, Java, JavaScript, Scala.