Hongzhi CHEN

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ACADEMIC EXPERIENCE

2016.8 - Present **The Chinese University of Hong Kong (CUHK)** *Shatin,* Hong Kong
Ph.D. in Computer Science and Engineering
- Supervisor: Prof. James Cheng

2011.9 - 2015.6 **Huazhong University of Science and Technology (HUST)** *Wuhan,* China
B.Eng in Computer Science and Technology
Overall GPA: 3.88 / 4.00 Rank: 1/ 30/ 472 (**in a 30-student Honor Class**)

RESEARCH INTERESTS

My general research interests cover the broad area of distributed systems and databases, with special emphasis on distributed graph systems and distributed machine learning/deep learning systems. My current works focus on RDMA based OLAP/OLTP system over property graphs, distributed DL systems and Graph Neural Network systems.

WORK EXPERIENCE

2017.5 - 2017.8 **University of Pennsylvania,** *NetDB Lab, Dept. CIS* PA, USA
- **Visiting Scholar**, Distributed Graph Query Optimization
  Supervisor: **Prof. Boon Thau Loo**.

2015.9 - 2016.7 **The Chinese University of Hong Kong,** *HDL Lab, Dept. CSE* HK
- **Research Assistant**, Distributed Systems for Large Scale Data Analytics.
  Supervisor: **Prof. James Cheng**.

2014.6 - 2015.5 **Microsoft Research Asia,** *Software Analytics Group* Beijing, China
- **Research Intern**, Large-scale Data Analytics, Distributed System.
  Supervisor: **Qingwei Lin** (Lead Researcher) and **Dr. Jianguang Lou** (Principle Researcher).

2013.9 - 2014.6 **HUST,** *IDC Lab, Dept. CSE* Wuhan, China
- **Research Intern**, System Optimization on Hadoop.
  Supervisor: **Prof. Ruixuan Li**

PUBLICATIONS

[1] *A Representation Learning Framework for Property Graphs* **SIGKDD'19**
Yifan Hou, **Hongzhi Chen**, Changji Li, James Cheng, Ming-Chang Yang.

[2] *Large Scale Graph Mining with G-Miner* **SIGMOD'19**
Hongzhi Chen, Xiaoxi Wang, Chenghuan Huang, Juncheng Fang, Yifan Hou, Changji Li, James Cheng.

[3] *Optimizing Declarative Graph Queries at Large Scale* **SIGMOD'19**
Qizhen Zhang, Akash Acharya, **Hongzhi Chen**, Simran Arora, Ang Chen, Vincent Liu, Boon Loo.

[4] *Scalable De Novo Genome Assembly Using a Pregel-Like Graph-Parallel System* **TCBB'19**
Guimu Guo, **Hongzhi Chen**, Da Yan, James Cheng, Jake Chen, Zechen Chong.

[5] *Lightweight Fault Tolerance in Pregel-Like Systems* **ICPP'19**
Da Yan, James Cheng, **Hongzhi Chen**, Cheng Long, Purushotham Bangalore.

[6] *G-Miner: An Efficient Task-Oriented Graph Mining System.* **EuroSys'18**
Hongzhi Chen, Miao Liu, Yunjian Zhao, Xiao Yan, Da Yan, James Cheng.

[7] *Scalable De Novo Genome Assembly Using Pregel.* **ICDE'18**
Da Yan, **Hongzhi Chen**, James Cheng, Zhenkun Cai, Bin Shao.

[8] *GraphD: Distributed Vertex-Centric Graph Processing Beyond the Memory Limit.* **TPDS'18**
Da Yan, Yuzhen Huang, Miao Liu, **Hongzhi Chen**, James Cheng, Huanhuan Wu, Chengcui Zhang.

[9] *Norm-Ranging LSH for Maximum Inner Product Search.* **NIPS'18**
Xiao Yan, Jinfeng Li, Xinyan Da, **Hongzhi Chen**, and James Cheng.

[10] *Architectural Implications on the Performance and Cost of Graph Analytics Systems.* **SoCC'17**
Qizhen Zhang, **Hongzhi Chen**, Da Yan, James Cheng, Boon Thau Loo, Purushotham Bangalore.

[11] *G-thinker: Big Graph Mining Made Easier and Faster.* **arXiv'17**
Da Yan, **Hongzhi Chen**, James Cheng, M.Tamer.Ozsu, Qizhen Zhang, John C.S. Lui.

AWARDS & HONORS

2019.5 SIGMOD Travel Award
2018.4 EuroSys Travel Award
2016 - 2020 CUHK Postgraduate Studentship.
2015.6 The original winner of **Hong Kong PhD Fellowship**.
2015.6 **"Stars of Tomorrow" at Microsoft Research Asia** (Only 15% research interns won the Award)
2015.6 Outstanding Graduates (3% in HUST)
2014.10 CCF (China Computer Federation) National **Top 100** Outstanding Undergraduates (**Top 0.1%**)
2014.9 Academic Excellence Scholarship (2% in HUST)
2014.9 Merit Undergraduate (2% in HUST)
2013.9 National Undergraduate Scholarship (2% in HUST)
2013.9 Merit Undergraduate (2% in HUST)
2012.9 Most Outstanding Undergraduate (1% in HUST)
2012.9 Academic Excellence Scholarship (2% in HUST)

TEACHING

Spring, 2018 CSCI1020: Hands-on Introduction to C++
Fall, 2017 ENGG1110: Problem Solving By Programming
Spring, 2017 ENGG1110: Problem Solving By Programming
Fall, 2016 ENGG1110: Problem Solving By Programming

PROFESSIONAL ACTIVITIES

External Reviewer

2019 SIGMOD
2018 VLDB, ICDE
2017 VLDB, ICDE, CCGRID, BigData
2016 VLDB, KDD, SOCC, ICDM, DASFAA, BigData, APWeb

Participation in

2019 International Conference on Management of Data, Amsterdam, Netherlands
2018 European Conference on Computer Systems, Porto, Portugal
2015 China National Computer Congress, Zhengzhou, China

SKILLS

Programming C/C++, C#, Java, Python
Operating Linux, Windows
Documentation Latex, MS Office, HTML