Curriculum vitae

Yu-Chong Hu

About

Huazhong University of Science and Technology

Associate Professor

His research mainly focuses on designing and implementing coding schemes (e.g., Network Coding, Erasure coding) and deduplication technique to improve reliability and performance for storage systems, including cloud storage, big-data storage, in-memory database, etc.

Education

University of Science and Technology of China

2005 – 2010
- Ph.D. in Computer Software and Theory.
- Advisor: Prof. Yinlong Xu.
- Scholarship for Outstanding Ph.D.

2001 – 2005
- B.E. in Computer Science and Technology.
- Special Class for the Gifted Young (SCGY).
- Recommended for admission of Ph.D.

Personal Details

Date of Birth: Jan. 21st, 1983
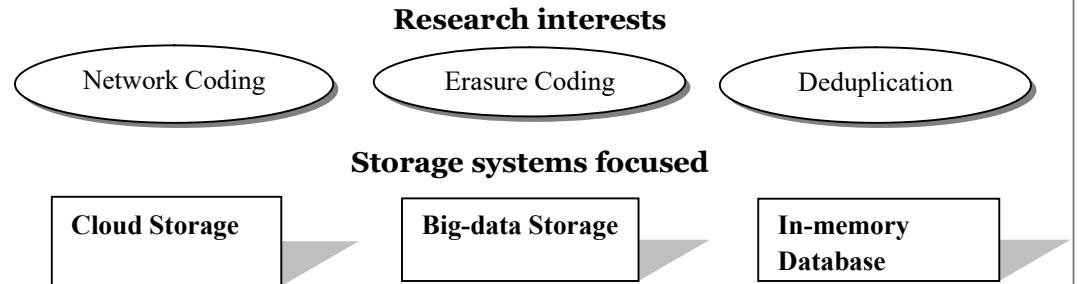Email:
yuchonghu@hust.edu.cn
Homepage:
http://yuchonghu.com
Tel: 0086-13657235137(cell)
Address: B509, Wuhan National Laboratory for Optoelectronics, Huazhong University of Science and Technology, Wuhan, China, 430074.

Research Direction

Research interests

Network Coding   Erasure Coding   Deduplication

Storage systems focused

Cloud Storage   Big-data Storage   In-memory Database

Work Experience

2010 – 2012: Postdoctoral Fellow, supervisor: Prof. Raymond W. Yeung.
Institute of Network Coding, The Chinese University of Hong Kong.
2013 – 2015: Postdoctoral Fellow, supervisor: Prof. Patrick. P.C. Lee.
Department of Computer Science and Engineering, The Chinese University of Hong Kong.
2015 – now: Associate Professor.
School of Computer Science and Technology, Huazhong University of Science and Technology

Publications as the first/corresponding author

1. Xiaoyang Zhang, **Yuchong Hu***, Patrick P. C. Lee, Pan Zhou
"Toward Optimal Storage Scaling via Network Coding: From Theory to Practice",
Proceedings of IEEE INFOCOM (INFOCOM 2018)(CCF A), Honolulu, USA, Apr. 2018.
2. **Yuchong Hu**, Xiaolu Li, Mi Zhang, Patrick P. C. Lee, Xiaoyang Zhang, Pan Zhou, Dan Feng
"Optimal Repair Layering for Erasure-Coded Data Centers: From Theory to Practice",
ACM Transactions on Storage (TOS)(CCF A),Volume 13 Issue 4, Nov. 2017
3. Pan Zhou, Qian Wang, Wei Wang, **Yuchong Hu***, Dapeng Wu
"Near-Optimal and Practical Jamming-Resistant Energy-Efficient Cognitive Radio Communications"
IEEE Transactions on Information Forensics and Security(TIFS) (CCF A), Volume: 12, Issue: 11, Nov. 2017
4. Runhui Li, **Yuchong Hu***, and Patrick P. C. Lee.
"Enabling Efficient and Reliable Transition from Replication to Erasure Coding for Clustered File Systems",
IEEE transactions on parallel and distributed systems (TPDS) (CCF A), Volume: 28, Issue: 9, Sept.2017.
5. **Yuchong Hu**, Patrick P. C. Lee, Kenneth Shum,Pan Zhou.
"Proxy-assisted Regenerating Codes with Uncoded Repair for Distributed Storage Systems", DOI: 10.1109/TIT.2017.2705092
IEEE Transactions on Information Theory (T-iT)(CCF A),Volume: PP, Issue: 99, May 2017
6. Pan Zhou, Wenqi Wei, Kaigui Bian, Dapeng Oliver Wu, **Yuchong Hu***, Qian Wang
"Private and Truthful Aggregative Game for Large-Scale Spectrum Sharing"
IEEE Journal on Selected Areas in Communications (JSAC) (CCF A),Volume: 35, Issue: 2, Feb. 2017.
7. **Yuchong Hu**, Patrick P. C. Lee, Kenneth W. Shum,
"Analysis and Construction of Functional Regenerating Codes with Uncoded Repair for Distributed Storage Systems",
Proceedings of IEEE INFOCOM (INFOCOM 2013)(CCF A), Turin, Italy, April 2013.
8. **Yuchong Hu**, Henry C. H. Chen, Patrick P. C. Lee, and Yang Tang.
"NCCloud: Applying Network Coding for the Storage Repair in a Cloud-of-Clouds",
Proceedings of the 10th USENIX Conference on File and Storage Technologies (FAST 2012)(CCF A). San Jose, CA, February 2012.
9. **Yuchong Hu**, Yinlong Xu, Xiaozhao Wang, Cheng Zhan and Pei Li,
"Cooperative Recovery of Distributed Storage Systems from Multi-Losses with Network Coding",
IEEE Journal on Selected Areas in Communications (JSAC)(CCF A), Volume:28 NUMBER: 2, Feb. 2010

Projects

Fundamental Research Funds for the Central Universities 2017;
Hubei Provincial Natural Science Foundation of China 2016;
National Natural Science Foundation of China (61502191);
CCF-Tencent Open Fund 2015.

Awards

National scholarship for graduate students 2017 (student: Wenxiang Chen);
National scholarship for graduate students 2016 (student: ZiJin Han);
CCF-Tencent Open Fund 2015;
CAS Pollyanna Y. W. CHU Scholarship for Outstanding Ph.D Stu-