

### Title:

Intelligent Data Management of Cloud Computing and IoT

### **Abstract:**

Digital information and data have experienced rapid growth in many disciplines over the last decade as a consequence of the fourth digital information revolution. New technologies have facilitated the automatic and digital creation of more data. Thus, research data management (RDM), as well as digital curation and preservation, have become more important. Integration of data management and intelligent computing depth has become a pressing demand. The purpose of the workshop is to solicit existing research advances in the (potential) use of Artificial Intelligence (AI) in the data management of cloud computing and IoT, as well as propose novel technical solutions for data management, data sharing in cloud and IoT, data provenance of IoT, etc.

## **Scope and Topics:**

Potential topics include but are not limited to:

- ♦ Intelligent data acquisition and storage
- ♦ Intelligent data cleaning and quality management
- ♦ Multi source data intelligent fusion
- ♦ Intelligent query processing and optimization of structured and unstructured data
- ♦ Intelligent retrieval of multimedia data
- ♦ Management of electronic record
- ♦ Evidential quality preserving of electronic record
- ♦ Intelligent data analysis and mining in cloud and IoT
- ♦ Intelligent analysis and mining of XML and graph data
- ♦ Intelligent management of spatio-temporal data
- → Techniques of Secure Storage for Cloud Data
- ♦ Blockchain-based data management
- ♦ Distributed and parallel intelligent data management
- ♦ Data management and analysis supporting deep learning

# **Program Committee Chairs:**

Shaoen Wu, Ball State University, USA

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Bio: Prof. Shaoen Wu is a tenured (early promoted) associate professor and the assistant chair of the Department of Computer Science. He is a member of Advisory



Council on Scholarship for Associate Vice President for Research, and Dean's Faculty Advisory Board. He received his PhD degree in Computer Science and Software Engineering from Auburn University, his MS degree in Control Theory and Engineering from University of Electronic Science and Technology of China (UESTC), and his BS degree in Automation from Qingdao University of Science and Technology (QUST). He is a senior member of IEEE, and a member of ACM, the secretory of IEEE MMTC society. He has worked as an assistant professor in the School of Computing at University of Southern Mississippi, a Staff Scientist at ADTRAN, and a Member of Technical Staff at Bell Labs, Lucent Technologies. He has published over 70 peer-reviewed papers in wireless, IoT, smart health and robotics at international journals e.g. IEEE Internet of Things Journal and conferences e.g. IEEE Globecom, ICC and ICCCN. His research has been generously supported over \$2M by NSF, NASA, NVIDIA, Intel, Dell, ARM, Cypress Inc., Microsoft, and Ball State Aspire Program. He has received two Best Paper Awards, a Faculty Excellence Award, and a First Place in Graduate Student Forum. He has actively served as a Chair/Co-Chair at several international conferences and an editor for a few of international journals. He has served on several proposal panels for NSA and NASA.

## Yingchi Mao, Hohai University, China

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Bio: Prof. Yingchi Mao is a professor and the vice chair of College of Computer and Information at Hohai University. She received her PhD degree in the Computer Science and Technology Department at Nanjing University, China, in 2007. She is a member of IEEE, and an executive member of ACM Nanjing Chapter. She is also an executive member of CCF Nanjing, and a committee member of CCF Distributed Parallel Computing and Systems. She has published over 50 peer-reviewed papers in wireless sensor networks, IoT, Cloud Computing. Her research has been supported from NSFC, the National Key Research and Development Program of China. Her research interests include data management and analysis in Cloud Computing, IoT, edge computing.

# Jinyue Xia, International Business Machines Corporation (IBM), USA junyue.xia@ibm.com

Bio: Dr. Jinyue Xia received his Ph.D. from the University of North Carolina in 2016, and the MS degree in the computer and science department at the NanJing University of Aeronautics and Astronautics, China, in 2009. Dr. Xia's research interests are applied cryptography and network security. He has published over 20 research papers that have appeared at many respected venues such as IEEE Transactions on Information Forensics & Security, ACM Transactions on Information & System Security, etc. Now, he is a senior researcher of IBM. He has served on the technical program committees for several IEEE/ACM conferences on data mining, data management and AI.



**Yongjun Ren**, Nanjing University of Information Science and Technology, China Email: renyj100@163.com

Bio: Dr. Ren obtained the PhD degree in the computer and science department at the NanJing University of Aeronautics and Astronautics, China, in 2008. He received the MS degree in Computer Science from Hohai University, and his BS degree in Automation from Jiangxi University of Science and Technology. Now he is serving as an associate professor in the NanJing University of Information science and Technology. His research interests include cloud data security, blockchain and management of electronic record.

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