

Runhua Xu

Laboratory for Education and Research on Security Assured Information Systems (LERSAIS)
Department of Informatics and Networked Systems
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Current Position

Ph.D. Student, Graduate Student Researcher & Teaching Fellow/Assistant, University of Pittsburgh.

Areas of Specialization

Information assurance • Access control

Applied cryptography • Distributed ledger and blockchain

Security and privacy issues in areas of data, distributed system, hybrid cloud-edge computing

Education

- 2015-present PH.D. STUDENT in Information Assurance, University of Pittsburgh, Pittsburgh, U.S.
2011-2014 M.S. in Computer Science, Beihang University¹, Beijing, China.
2007-2011 B.E. in Software Engineering, Northwestern Polytechnical University, Xi'an, China.

Publications & Talks

CONFERENCE ARTICLES

- 2018 **Runhua Xu**, Balaji Palanisamy and James Joshi. "QueryGuard: Privacy-preserving Latency-aware Query Optimization for Edge Computing." In *2018 17th IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom)*, New York, USA. 2018.
- 2017 **Runhua Xu**, James B.D. Joshi, Prashant Krishnamurthy and David Tipper. "Insider Threat Mitigation in Attribute based Encryption." In *9th Annual National Cyber Summit (Research Track)*, Von Braun Center, Huntsville, AL, USA. 2017.
- 2016 **Runhua Xu** and James B.D. Joshi. "Enabling Attribute Based Encryption as an Internet Service." In *2016 IEEE 2nd International Conference on Collaboration and Internet Computing*, Pittsburgh, USA. pp. 417-426. IEEE, 2016.
- 2016 **Runhua Xu** and James B.D. Joshi. "An Integrated Privacy Preserving Attribute Based Access Control Framework." In *2016 IEEE 9th International Conference on Cloud Computing*, San Francisco, USA. pp. 68-76. IEEE, 2016.
- 2013 **Runhua Xu**, Yang Wang, and Bo Lang. "A Tree-Based CP-ABE Scheme with Hidden Policy Supporting Secure Data Sharing in Cloud Computing." In *Advanced Cloud and Big Data (CBD), 2013 International Conference on*, Nanjing, China. pp. 51-57. IEEE, 2013.
- 2013 Bo Lang, **Runhua Xu**, and Yawei Duan. "Extending the ciphertext-policy attribute based encryption scheme for supporting flexible access control." In *Security and Cryptography (SECRYPT), 2013 International Conference on*, Reykjavik, Iceland. pp. 1-11. IEEE, 2013.
- 2012 **Runhua Xu** and Bo Lang. "Survey on security model of authenticated key exchange protocols." *The 9th Graduate Students Academic Forum of Beihang University*. pp. 434-442. 2012. (in Chinese)

JOURNAL ARTICLES

- 2018 **Runhua Xu**, James B.D. Joshi and Prashant Krishnamurthy "An Integrated Privacy Preserving Attribute Based Access Control Framework Supporting Secure Deduplication." (under peer review).
- 2015 **Runhua Xu**, and Bo Lang. "A CP-ABE scheme with hidden policy and its application in cloud computing."

¹Beihang University, previously known as Beijing University of Aeronautics and Astronautics

International Journal of Cloud Computing, Advanced Cloud and Big Data. vol. 4, no. 4, pp. 279-298. 2015.
 Bo Lang, **Runhua Xu**, and Yawei Duan. "Self-contained Data Protection Scheme Based on CP-ABE." *E-Business and Telecommunications, Communications in Computer and Information Science* pp. 306-321. 2014.

Academia Service & Activities

JOURNAL REVIEWER (INCLUDING SUB-REVIEWS)

IEEE Transactions on Information Forensics and Security (TIFS),
 IEEE Transactions on Services Computing (TSC),
 ACM Transactions on Internet Technology (TOIT).

CONFERENCE REVIEWER (INCLUDING EXTERNAL REVIEWS)

IEEE International Conference on Big Data (BigData 2016)
 IEEE International Conference on Collaboration and Internet Computing (CIC 2016)
 IEEE International Conference on Services Computing (SCC 2017)
 ACM Conference on Data and Application Security and Privacy (CODASPY 2016, 2017)
 ACM Symposium on Access Control Models and Technologies (SACMAT 2017)
 ACM International Conference on Information and Knowledge Management (CIKM 2017)

VOLUNTEER & WEB MASTER

SAC-PA Workshop 2017, 2018.
 IEEE CIC 2016, 2017, 2018.
 IEEE IRI 2016.
 IEEE Cloud 2016.

Intern & Teaching

TEACHING ASSISTANT

INSCI 2955 *Special Topics on Security Assured Health Informatics*. School of Computing and Information, University of Pittsburgh. (2018 Fall)
 INFSCI 2620 *Developing Secure Systems*. School of Computing and Information, University of Pittsburgh. (2017 Fall, 2018 Fall)
 INFSCI 1074 *Computer Security*. School of Computing and Information, University of Pittsburgh. (2017 Fall)
 INFSCI 2621/TELCOM 2813 *Security Management and Computer Forensics*. School of Computing and Information, University of Pittsburgh. (2017 Spring, 2018 Spring)
 INFSCI 1017 *Implementation of Information System*. School of Computing and Information, University of Pittsburgh. (2017 Spring)
 INFSCI 2150/TELCOM 2810 *Information Security and Privacy*. School of Computing and Information, University of Pittsburgh. (2016 Spring, 2016 Fall)
The Principle of Database System. School of Computer Science and Engineering, Beihang University. (2012 Spring)

TEACHING FELLOW

INFSCI 2150/TELCOM 2810 *Information Security and Privacy (Online)*. School of Computing and Information, University of Pittsburgh. (2016 Summer, 2016 Fall, 2017 Summer, 2017 Fall, 2018 Summer)

INTERN

2014.3-2014.12 Research and Development Engineer. *Department of Image Search, Baidu Inc.*
 2011.7-2011.8 Software Development Engineer. *National Software Talent International Training Base (Xi'an).*

Grants, Honors & Awards

2016 Student Travel Award, IEEE Cloud 2016.
 2012-2013 The Scholarship of Graduate, Beihang University. (2 times)

2011 Honored enrollment granted mandatory admission test waived.
2008-2011 The Scholarship of Undergraduate, Northwestern Polytechnical University.(3 times)
2008-2011 Excellent Student Leaders Award, Merit Student Award, Northwestern Polytechnical University.

Other Service & Activities

2011-2013 Commissary in charge of organization, Beihang University.
2008-2010 Director of Science and Technology Association, Northwestern Polytechnical University.
2008-present National Badminton Referee of China, Degree 2.