Jason Lin

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Research Interests

Scientific Document Analysis, Geospatial Intelligence, and Quantum Cryptography

Education

Ph.D., now. Computer Science and Engineering, Texas A&M University, College Station, TX
Dissertation: *"The Study of Mathematical Expression-based Document Signature"*
Advisor: Dr. Jyh-Charn (Steve) Liu

M.S., 2011. Computer Science and Information Engineering**,** National Cheng Kung University, Tainan, Taiwan
Thesis: *"Quantum Secret Sharing Protocols"*
Advisor: Dr. Tzonelih Hwang

B.S., 2009. Information Engineering and Computer Science**,** Feng Chia University, Taichung, Taiwan
Project: *"A New Secure Data Hiding Scheme by Using a Secret Location Map"*
Advisor: Dr. Wei-Bin Lee, Dr. Tung-Shou Chen

Refereed Journal Publications

1. S.-H. Kao, J. Lin, C.-W. Tsai, and T. Hwang, "An improved protocol for controlled deterministic secure quantum communication using five-qubit entangled state" to appear in *International Journal of Theoretical Physics*, Vol. 57, No 6, pp. 1894-1902, Mar 2018 (IF = 0.968).
2. C.-W. Tsai and J. Lin, "Fault-tolerant remote quantum entanglement establishment for secure quantum communications," *International Journal of Theoretical Physics*, Vol. 55, No. 7, pp. 3200-3206, July 2016 (IF = 0.968).
3. J. Chen, T.-S. Chen, C.-N. Lin, S.-Y. Chen, and J. Lin, "A simple JPEG-LS compressed technique for 2DGE image with ROI emphasis", *The Imaging Science Journal*, Vol. 63, No. 2, pp. 76-80, Feb 2015 (IF = 0.366).
4. J. Lin, C.-W. Yang, and T. Hwang, "Quantum private comparison of equality protocol without a third party," *Quantum Information Processing*, Vol. 13, No. 2, pp. 239-247, Feb 2014 (IF = 2.283).
5. J. Lin and T. Hwang, "Bell state entanglement swappings over collective noises and their applications on quantum cryptography," *Quantum Information Processing*, Vol. 12, No. 2, pp.1089-1107, Feb 2013 (IF = 2.283).
6. J. Lin and T. Hwang, "New circular quantum secret sharing for remote agents," *Quantum Information Processing*, Vol. 12, No. 1, pp. 685-697, Jan 2013 (IF = 2.283).
7. J. Lin, C.-W. Yang, C.-W. Tsai, and T. Hwang, "Intercept-resend attacks on semi-quantum secret sharing and the improvements," *International Journal of Theoretical Physics*, Vol. 52, No. 1, pp. 156-162, Jan 2013 (IF = 0.968).

8. H.-Y. Tseng, J. Lin, and T. Hwang, "New quantum private comparison protocol using EPR pairs," *Quantum Information Processing*, Vol. 11, No. 2, pp. 373-384, Apr 2012 (IF = 2.283).
9. J. Lin, H.-Y. Tseng, and T. Hwang, "Intercept-resend attacks on Chen et al.'s quantum private comparison protocol and the improvements," *Optics Communications*, Vol. 284, No. 9, pp. 2412-2414, May 2011 (IF = 1.887).
10. J. Lin and T. Hwang, "An enhancement on Shi et al.'s multiparty quantum secret sharing protocol," *Optics Communications*, Vol. 284, No. 5, pp. 1468-1471, Mar 2011 (IF = 1.887).

Refereed Conferences

1. M. Rugh, X. Wang, J. Lin, L. Barroso, M. Capraro, and R. Capraro, "Computer generated dynamic graphic organizer's effect on learning outcomes," Proposal accepted to *the National Council of Teachers of Mathematics Research Conference*, San Diego, California, Apr. 1-3, 2019.
2. X. Wang, J. Lin, R. Vrecenar, and J.-C. Liu, "QuQn Map: Qualitative-Quantitative mapping of scientific papers," to appear in *Proceedings of the 18th ACM Symposium on Document Engineering*, Halifax, Nova Scotia, Canada, Aug. 28-31, 2018.
3. J. Lin, X. Wang, and J.-C. Liu, "Prediction of mathematical expression constraints (ME-Con)," to appear in *Proceedings of the 18th ACM Symposium on Document Engineering*, Halifax, Nova Scotia, Canada, Aug. 28-31, 2018.
4. X. Wang, J. Lin, R. Vrecenar, and J.-C. Liu, "Syntactic role identification of mathematical expressions," *Proceedings of the Twelfth International Conference on Digital Information Management*, pp. 179-184, Fukuoka, Japan, Sept 12-14, 2017.
5. X. Wang, J. Lin, S. George, and J.-C. Liu, "DT-GIS system for tactical pattern exploration in asymmetric conflicts," *Proceedings of the 20th International Command and Control Research and Technology Symposium*, Annapolis, Maryland, June 16-19, 2015.
6. J. Lin, X. Wang, B. Qu, S. George, and J.-C. Liu, "Strategic planning and tactical situational awareness using MECH," *Proceedings of the 20th International Command and Control Research and Technology Symposium*, Annapolis, Maryland, June 16-19, 2015.
7. X. Wang, S. George, J. Lin, and J.-C. Liu, "Quantifying tactical risk: A framework for statistical classification using MECH," *Proceedings of the 8th International Conference on Social Computing, Behavior-Cultural Modeling and Prediction*, Washington, D.C., Mar 31-Apr 3, 2015, LNCS Vol. 9021, pp. 446-451.
8. J. Lin, B. Qu, X. Wang, S. George, and J.-C. Liu, "Risk management in asymmetric conflict: using predictive route reconnaissance to assess and mitigate threats," *Proceedings of the 8th International Conference on Social Computing, Behavior-Cultural Modeling and Prediction*, Washington, D.C., Mar 31-Apr 3, 2015, LNCS Vol. 9021, pp. 350-355.
9. C.-N. Lin, C.-C. Chang, W.-B. Lee, and J. Lin, "A novel secure data hiding scheme using a secret reference matrix," *Proceedings of the Fifth International Conference on Intelligent Information Hiding and Multimedia Signal Processing*, Kyoto, Japan, Sept 12-14, 2009, pp. 369-373 (EI).

Technical Report

1. S. George, X. Wang, J. Lin, B. Qu, and J.-C. Liu, "MECH: Algorithms and tools for automated assessment of potential attack locations," TR 2015-10-06, Department of Computer Science and Engineering, Texas A&M University, College Station, 2015.

Professional Experiences

2014-2019: Teaching Assistant, Texas A&M Engineering Experiment Station

- CSCE-121: Introduction to Program Design and Concepts (Fall 2018) (Spring 2019)
- CSCE-221: Data Structures and Algorithms (Spring 2016)
- CSCE-411/629: Design and Analysis of Algorithms (Spring 2015) (Fall 2015)
- CSCE-222: Discrete Structures for Computing (Fall 2014)

2013-2018: Research Assistant, Texas A&M Engineering Experiment Station

- "Probabilistic Forecast Tracking and Calibration Software System", Apache Corporation
- "Context-Aware Mission Auditing System", AFRL
- "MECH: Algorithms and Tools for Automated Assessment of Potential Attack Locations", ONR

Selected Honors

2015: SBP Student Travel Award

2010: National Finalist, Microsoft Imagine Cup, Creative Digital Group

2009: First Prize Award, Chunghwa Telecom Innovation & Application Contest, MOD Group

Professional Services

2012-2019: Reviewer, Quantum Information Processing

2015-2016: Reviewer, International Journal of Theoretical Physics

Activities

- Captain, Taiwanese Badminton Club, 2015-2016
- Member, Taiwanese Student Association, 2013-2019