Assistant Professor, LIANG, ZHIYAO

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Academic Qualification

Ph.D. in in Computer Science, Houston University, USA, 2008
M.S. in Computer Science, The University of Texas at Austin, USA, 2001
B.S. in Computer Science and Engineering, National University of Defense Technology, China, 1996

Teaching Area

Compiler Prinicples and Construction

Computational Linguistics

Data Structures

Fundamentals of Computer Programming

Human-Computer Interaction

Object Oriented Programming

Research Area

Information Security

Computational Linguistics

Theory of Computation and Algorithms

Formal Methods

Working Experience

2010 to present: Assistant Professor, Faculty of Information Technology, Macau University of Science and Technology
2009: Research Postdoctoral Fellow, LDCSEE Department, West Virginial University, USA
1996 to 1999: Hunan Normal University, Department of Computer Technology Education

Academic Publication (selected)

Jixiang Yang, **Zhiyao Liang***, Jianqing Li, Yanfen Gan, Junliu Zhong, "A Novel Copy–Move Forgery Detection Algorithm via Gradient-Hash Matching and Simplified Cluster-Based Filtering", International Journal of Pattern Recognition and Artificial Intelligence, 2023.

Zhiyao Liang* and Shiru Zhang, "Generating and Measuring Similar Sentences Using Long Short-Term Memory and Generative Adversarial Networks," *IEEE Access,* PP(99):1-1, August 2021

Jixiang Yang, **Zhiyao Liang*,** Yanfen Gan, Junliu Zhong, "A novel copy-move forgery detection algorithm via two-stage filtering", *in Digital Signal Processing* , 112(2021) 103032, Jun 2021.

Shiru Zhang, **Zhiyao Liang***, Jian Lin, "Sentence Similarity Measurement with Convolutional Neural Networks Using Semantic and Syntactic Features. *CMC-Computers, Materials & Continua,* 63(2), pages 943–957, 2020.

Qiaoyang Zhang, **Zhiyao Liang***, Zhiping Cai:"Developing a New Security Framework for Bluetooth Low Energy Devices, *CMC: Computers, Materials & Continua* , Vol.59 No.2, pages.457-

Z. Liang, K. Subramani, and J. Worthington: "Polynomial time certifying algorithms for the planar quantified integer programming problem". *Journal of Logic and Computation* , 23(5): pages1017–1033, 2013.

Zhiyao Liang and Rakesh Verma, "Correcting and Improving the NP Proof of Cryptographic Protocol Insecurity", appear *in Proceedings of Information Systems Security, 5th International Conference, ICISS 2009* , pages 101-116, Kolkata, India, *LNCS* , December 2009.

Zhiyao Liang and Rakesh Verma, "Complexity of Checking Freshness for Cryptographic Protocols", In *Proceedings of Information Systems Security, 4th International Conference, ICISS 2008,* pages 86-106, Hyderabad, India, *LNCS* , December, 2008.

Zhiyao Liang and Rakesh Verma, "Improving Techniques for Proving Undecidability of Checking Cryptographic Protocols", In Proceedings of The Third International Conference on Availability, Reliability and Security, ARES, pages 1067-1074, Barcelona, Spain, IEEE, March, 2008

Zhiyao Liang and Rakesh Verma, "Secrecy Checking of Security Protocols: Solution to an Open Problem", J*oint Workshop on Foundations of Computer Security and Automated Reasoning for Security Protocol Analysis, FCS-ARSPA* , pages 95-112, Wroclaw, Poland, July, 2007.

"Model Checking Using Tabled Rewriting", Zhiyao Liang, Contributions to the Doctoral Programme of the 2nd International Joint Conference on Automated Reasoning, IJCAR Doctoral Programme, Cork, Ireland, July 2004.

Patents

"A method, system, and device, of detecting copy-paste forgery images". **Zhiyao Liang**, Jixiang Yang, and Jianqin Li. China patent, 2023 Sep., Patent No. ZL 2022 1 1473688.6

Professional Certification and Awards

Sun Certified Java Programmer

Professional Society Membership

Member of IEEE, 2005 to present