Associate Professor Li Xianfeng

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Academic Qualification:

Ph.D. in School of Computing, National University of Singapore, 2005.
B.Sc. in School of Computer and Control, Beijing Institute of Technology, 1995.

Teaching Area

Computer Architecture
Deep Learning
High-Performance Networking

Research Area

Edge Intelligence (Edge AI)
Smart Internet of Things (AIoT)
High-Performance Networking
Hardware/Software CoDesign

Working Experience

09/2019 - Present	International Institute for Next Generation Internet, Macau University of Science and Technology, Associate Professor.
08/2009 - 08/2019	School of Electronic and Computer Engineering, Peking University Shenzhen Graduate School, Associate Professor
06/2008 – 09/2009	Microprocessor Research and Development Center, Peking University Shenzhen Graduate School, Lecturer
01/2006 - 05/2008	School of EECS, Peking University, Post-Doc Researcher
08/1995 – 12/2000	Information Center of China NORINCO Group, Engineer & Assistant Head of Department

Academic Publication (selected)

1. **Xianfeng Li**, Gengchao Li. "An Adaptive CPU-GPU Governing Framework for Mobile Games on big. LITTLE Architectures," IEEE Transactions on Computers (**TC**), 2020 (Early Access).

2. Wenjun Li, **Xianfeng Li**, Dagang Li, Tong Yang, Huiping Lin, Ori Rottenstreich, Hui Li, Gaogang Xie, Balajee Vamanan, "Tuple space assisted packet classification with high performance on

both search and update," IEEE Journal on Selected Areas in Communications (**JSAC**), 38(7), 2020, pp.1555-1569.

3. **Xianfeng Li**, Gengchao Li, Xiaole Cui, "ReTriple: reduction of redundant rendering on android devices for performance and energy optimizations," Proceedings of the 57th ACM/EDAC/IEEE Design Automation Conference (**DAC**), 2020.

4. **Xianfeng Li**, Chongjian Xu, Qinglin Zhao, "Shellproof: More Efficient Zero-Knowledge Proofs for Confidential Transactions in Blockchain," IEEE International Conference on Blockchain and Cryptocurrency (**ICBC**), 2020.

5. **Xianfeng Li** and Yan Huang. "A Flow Table with Two-Stage Timeout Mechanism for SDN Switches," IEEE 21st International Conference on High Performance Computing and Communications (**HPCC**), 2019.

6. **Xianfeng Li**, Jie Chen, Fan Deng, and Hui Li, "Profit-Driven Adaptive Moving Targets Search with UAV Swarms," **MDPI Sensors**, 19(7), 2019, pp.1545-1560.

7. Wenjun Li, **Xianfeng Li**, Hui Li, and Gaogang Xie, "CutSplit: A Decesion-Tree Combining Cutting and Splitting for Scalable Packet Classification," in the IEEE Conference on Computer Communications (**INFOCOM**), Hawaii, USA, 2018, pp.2645-2653.

8. **Xianfeng Li**, Tao Zhang and Janfeng Li, "A Particle Swarm Mobility Model for Flying Ad Hoc Networks," in IEEE Global Communications Conference (**GLOBECOM**), Singapore, 2017, pp.1-6.

9. **Xianfeng Li** and Jiaojiao Yan, "LEPR: Link Stability Estimation-based Preemptive Routing protocol for Flying Ad Hoc Networks," in 2017 IEEE Symposium on Computers and Communications (**ISCC**), 2017, pp. 1079–1084.

10. **Xianfeng Li** and Wencong Xie, "CRAFT: A Cache Reduction Architecture for Flow Tables in Software-Defined Networks," in 2017 IEEE Symposium on Computers and Communications (ISCC), 2017, pp. 967–972.

11. **Xianfeng Li**, Guikang Chen, "Energy-Efficient Execution for Repetitive App Usage Scenarios on big.LITTLE Architectures," in ACM/IEEE Design Automation Conference (**DAC**), Austin,, USA, 2017, pp.1-6.

12. **Xianfeng Li**, Yuanxin Lin, "TaPaC: A TCAM-Assisted Algorithmic Packet Classification with Bounded Worst-Case Performance," in IEEE Global Communications Conference

(**GLOBECOM**), Washington DC, USA, 2016, pp.1-6.

13. **Xianfeng Li** and Tao Zhang, "STGM: A Spatiotemporally Correlated Group Mobility Model for Flying Ad Hoc Networks," in China Communications and Networking, 2016 (ChinaCom), pp. 391–400. (**Best Paper Award**)

14. **Xianfeng Li**, Yuanxin Lin, and Wenjun Li, " GreenTCAM: A memory- and energy-efficient TCAM-based packet classification, " in 2016 International Conference on Computing, Networking and Communications (ICNC), 2016, pp. 1–6.

15. Tao Zhang, **Xianfeng Li**, and Rong-Zuo Guo, "Producing virtual face images for single sample face recognition," Optik - International Journal for Light and Electron Optics, vol. 125, no. 17, pp. 5017–5024, Sep. 2014.

16. Ransheng Shen, **Xianfeng Li**, Hui Li, "A space- and power-efficient multi-match packet classification technique combining TCAMs and SRAMs," **The Journal of Supercomputing**, Springer, 69(2), 2014, pp.673-692.

17. Wenjun Li, **Xianefng Li**, "HybridCuts: A Scheme Combining Decomposition and Cutting for Packet Classification," in 2013 IEEE 21st Annual Symposium on High-Performance Interconnects (**HOTI**), 2013, pp.41-48.

18. **Xianfeng Li**, Yun Liang, Tulika Mitra, Abhik Roychoudhury, "Chronos: A timing analyzer for embedded software," Elsevier Science of Computer Programming (**SCP**), 69(1-3), 2007, pp.56-67.

19. **Xianfeng Li**, Abhik Roychoudhury, Tulika Mitra, "Modeling Out-of-Order Processors for WCET Analysis," **Real-Time Systems**, Springer, 34(3), Nov 2006, pp.195-227.

20. **Xianfeng Li**, Tulika Mitra, Abhik Roychoudhury, "**Modeling Control Speculation for Timing Analysis,**" **Real-Time Systems**, Springer, 29(1), Jan 2005, pp.27-58.

Professional Society Membership

Member of ACM/IEEE/CCF