Wendi Feng

Associate Professor, Master Advisor

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Research Interests

Broadly computer networking, cloud/edge computing. Including various techniques to improve the performance of packet processing systems; security enhancement strategies for software-defined networks, and efficient network measurement algorithms and architectures.

Work Experiences

Beijing Information Science and Technology University — Beijing, China
Associate Professor, Master Advisor — 2023–Today

Beijing Information Science and Technology University — Beijing, China
Lecturer, Master Advisor — 2021–2022

University of Minnesota – Twin Cities — Minneapolis, USA
Research Assistant — 2018–2020

Education

Beijing University of Posts and Telecommunications — Beijing, China
Ph.D. in Computer Science — 2016–2021
Advisor: Junliang Chen (CAS/CAE Member, 中国工程院与中国科学院两院院士)

University of Minnesota – Twin Cities — Minneapolis, USA
CSC-supported Co-advised Ph.D. Student in SDN/NFV, — 2018–2020
Advisor: Zhi-Li Zhang (IEEE Fellow)

Halmstad University — Halmstad, Sweden
Lecture in FAT File System, Instructor: Mattias Weckstén — 2014

Beijing Information Science and Technology University — Beijing, China
B.E. in Computer Science and Engineering, GPA:3.73/4.00 — 2012–2016

- Ranked as the first in the major, and graduate with the highest distinction.

Fundings

National Natural Science Foundation of China – Youth Program — 300,000 RMB
PI — 2025–2027
State Management Methods for High Throughput NFV Systems on a Single Server

R&D Program of Beijing Municipal Education Commission — 150,000 RMB
PI — 2023–2025
SLO-Oriented High Performance Network Measurement Methods and Systems

Open Foundation of State key Laboratory of Networking and Switching Technology (Beijing University of Posts and Telecommunications) — 30,000 RMB

PI 2023–2025
Key Enablers in Accelerating High Performance Network Function Service Systems

Grants from NDSEC 390,000 RMB
PI 2022–2024
High Performance Network Encryption Systems over Dataplane

National Key R&D Program of China 4,000,000 RMB
Participation 2022–2025
Theory and Methods for Detecting Illegal Crypto-currency Secret Mining on Backbone Networks

Awards

- YOUNG ELITE SCIENTIST SPONSORSHIP PROGRAM BY BAST 2024–2026
- YOUNG BACKBONE SUPPORTING PROGRAM BY BISTU 2024–2025
- DISTINGUISHED BACHELOR THESIS ADVISOR BY BISTU 2024–2025

Selected Publications

[1] X. Dou, W. Feng, and J. Liu, "GRAPE: gpu-accelerated zero-copy iot measurement data compression transmission", in *Proceedings of the 8th Asia-Pacific Workshop on Networking, APNet 2024, Sydney, Australia, August 3-4, 2024*, ACM, 2024, pp. 192–193.

[2] W. Feng, K. Liu, S. Sun, B. Cheng, and W. Zhang, "Seraph: Towards secure and efficient multi-controller authentication with (t,n)-threshold signature in multi-domain SDWAN", *J. Netw. Comput. Appl.*, vol. 229, p. 103 920, 2024.

[3] J. Liu, W. Feng, and X. Dou, "Sketchlet: Partitioning traffic for sketch with clustering on multi-core commodity servers", in *Proceedings of the 8th Asia-Pacific Workshop on Networking, APNet 2024, Sydney, Australia, August 3-4, 2024*, ACM, 2024, pp. 198–199.

[4] W. Feng, C. Liu, B. Cheng, J. Chen, and Z. Wan, "An end-host-importance-aware secure service-enabled hybrid SDN deployment", *IEEE Trans. Netw. Serv. Manag.*, vol. 20, no. 2, pp. 2056–2070, 2023.

[5] W. Feng, C. Liu, and J. Chen, "Batchsketch: A "network-server" aligned solution for efficient mobile edge network sketching", in *ACM MobiCom '22: The 28th Annual International Conference on Mobile Computing and Networking, Sydney, NSW, Australia, October 17 - 21, 2022*, ACM, 2022, pp. 811–813.

[6] Z. Guo, S. Dou, S. Liu, W. Feng, W. Jiang, Y. Xu, and Z. Zhang, "Maintaining control resiliency and flow programmability in software-defined wans during controller failures", *IEEE/ACM Trans. Netw.*, vol. 30, no. 3, pp. 969–984, 2022.

[7] Z. Wu, Y. Zhang, W. Feng, and Z. Zhang, "Nflow and MVT abstractions for NFV scaling", in *IEEE INFOCOM 2022 - IEEE Conference on Computer Communications, London, United Kingdom, May 2-5, 2022*, IEEE, 2022, pp. 180–189.

[8] W. Feng, C. Liu, B. Cheng, and J. Chen, "Secure and cost-effective controller deployment in multi-domain SDN with baguette", *J. Netw. Comput. Appl.*, vol. 178, p. 102 969, 2021.

[9] W. Feng, Z. Guo, C. Liu, Y. Zheng, M. Wang, B. Cheng, and J. Chen, "BAGUETTE: towards a secure and cost-effective switch upgrade in hybrid software-defined networks", in *2020 IEEE International Conference on Communications, ICC 2020, Dublin, Ireland, June 7-11, 2020*, IEEE, 2020, pp. 1–6.

[10] W. Feng, Z. Zhang, C. Liu, and J. Chen, "Clé: Enhancing security with programmable dataplane enabled hybrid SDN", in *Proceedings of the 15th International Conference on emerging Networking EXperiments and Technologies, CoNEXT 2019, Companion Volume, Orlando, FL, USA, December 9-12, 2019*, ACM, 2019, pp. 76–77.