Zongming Fei

Department of Computer Science
University of Kentucky
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(a) Professional Preparation

Institution	Location	Major	Degree & Year
Nanjing University	Nanjing, China	Computer Science	B.S., 1986
Georgia Institute of Technology	Atlanta, GA	Computer Science	M.S., 1999
Georgia Institute of Technology	Atlanta, GA	Computer Science	Ph.D., 2000

(b) Appointments

Date	Title	Organization
2015-present	Professor	University of Kentucky, Lexington, KY
2006-2015	Associate Professor	University of Kentucky, Lexington, KY
2000-2006	Assistant Professor	University of Kentucky, Lexington, KY

(c) Products

(i) Five Selected Publications

1. Sergio Rivera, Zongming Fei, James Griffioen, "POLANCO: Enforcing Natural Language Network Policies," *Invited Paper*, *Proceedings of the 29th International Conference on Computer Communications and Networks (ICCCN 2020)*, Honolulu, Hawaii, USA (changed to virtual conference), August 3-6, 2020.

2. James Griffioen, Zongming Fei, Sergio Rivera, Jacob Chappell, Mami Hayashida, Pinyi Shi, Charles Carpenter, Yongwook Song, Bhushan Chitre, Hussamuddin Nasir, Kenneth L. Calvert, "Leveraging SDN to Enable Short-Term On-Demand Security Exceptions," In *Proceedings of the IEEE/IFIP Workshop on Security for Emerging Distributed Network Technologies (DISSECT 2019)*, Washington DC, April 8, 2019.

3. Sergio Rivera, James Griffioen, Zongming Fei, Mami Hayashida, Pinyi Shi, Bhushan Chitre, Jacob Chappell, Yongwook Song, Lowell Pike, Charles Carpenter, Hussamuddin Nasir, "Navigating the Unexpected Realities of Big Data Transfers in a Cloud-based World," In *Proceedings of Practice and Experience in Advanced Research Computing (PEARC18)*, Pittsburgh, PA, USA, July 22-26, 2018.

4. Faisal Alharbi, Zongming Fei, "Improving the quality of service for critical flows in Smart Grid using software-defined networking," *Proc. of the IEEE International Conference on Smart Grid Communications (SmartGridComm 2016)*, Sydney, Australia, Nov. 6-9, 2016.

5. Zongming Fei, Mengkun Yang, "A proactive tree recovery mechanism for resilient overlay multicast," *IEEE/ACM Transactions on Networking*, vol.15, no.1, pp.173-186, February 2007.

(ii) Five Other Publications

1. Mami Hayashida, Sergio Rivera, James Griffioen, Zongming Fei, Yongwook Song, "Debugging SDN in HPC Environments," In *Proceedings of Practice and Experience in Advanced Research Computing (PEARC'18)*, Pittsburgh, PA, USA, July 22-26, 2018.

2. James Griffioen, Kenneth Calvert, Zongming Fei, Sergio Rivera, Jacob Chappell, Mami Hayashida, Charles Carpenter, Yongwook Song, Hussamuddin Nasir, "VIP Lanes: High-speed Custom Communication Paths for Authorized Flows," (*Invited Paper*), *Proceedings of the 26th International Conference on Computer Communications and Networks (ICCCN 2017)*, Vancouver, Canada, July 31-August 3, 2017.

3. James Griffioen, Zongming Fei, Hussamuddin Nasir, Xiongqi Wu, Jeremy Reed, Charles Carpenter, "Measuring experiments in GENI", *Computer Networks*, Special issue on Future Internet Testbeds – Part II, vol.63, pp.17-32, April 2014.

4. Zongming Fei, Mengkun Yang, "A segmentation-based fine-grained peer sharing technique for delivering large media files in content distribution networks," *IEEE Transactions on Multimedia*, vol.8, no.4, pp.821-829, August 2006.

5. Mengkun Yang, Zongming Fei, "A proactive approach to reconstructing overlay multicast trees," *Proceedings of IEEE INFOCOM 2004*, Hong Kong, March 2004.

(d) Synergistic Activities

1. Developed the undergraduate cybersecurity certificate program by working with colleagues. Offered the new course CS572: Network Security in Fall 2019 as a part of the certificate program. Acted as a co-director for the certificate program.

2. Developed a new course "Foundations of Modern Networking." It explored the state-of-the-art research in the field. The topics discussed include Software Defined Networking (SDN), Network Function Virtualization (NFV), Quality of Experience (QoE), Internet of Things (IoT), and Cloud Computing.

3. Participated in the FABRIC Project (https://whatisfabric.net/) as a member of the FABRIC leadership team (https://whatisfabric.net/about/leadership). FABRIC is an adaptive programmable research infrastructure for computer science and science applications funded by NSF as a midscale research infrastructure project. It is a collaborative project with researchers from multiple institutions.

4. Co-organized the Large Scale Networking (LSN) Workshop on Huge Data: A Computing, Networking and Distributed Systems Perspective, on April 13-14, 2020. (http://www.netlab.uky.edu/hugedata2020/)

5. Served on NSF panels.