FISH.

Weisheng Xie, Ph.D.

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Overview

Weisheng (Wilson) Xie, Ph.D., focuses his practice on drafting and prosecuting patent applications directed to computer-related technologies and electrical engineering.

Wilson handles matters involving blockchain, machine learning, artificial intelligence, telecommunications, computer network, consumer electronics, computer security, cloud networking, and databases.

Prior to joining Fish & Richardson, Wilson worked as a senior product planner at a telecommunications equipment vendor, responsible for long-term product planning as well as designs and modeling of next-generation telecommunications networks. His industry experience covers a wide range of telecommunications technologies, including optical networks, packet networks, and wireless communications.

Wilson has over eight years of research experience in developing and evaluating optimization algorithms for telecommunications networks. His graduate research focused on applying combinatorial optimization techniques to improve the performances and reduce the costs of optical networks. He is well-versed in many computer languages including Java, C/C++, Matlab, SQL, CPLEX, Excel VBA, etc. Wilson holds 30 peer-reviewed research papers and eight U.S. patents and patent applications.

Wilson is a J.D. candidate at Georgetown University Law Center.

Patents

- "Systems and methods for routing and wavelength assignment for network virtualization," U.S. Patent 9,197,350
- "Hardware and software methodologies for dynamic resource allocation in virtualized flexible-grid optical networks," U.S. Patent 9,621,313
- "Network design method for Ethernet ring protection switching," U.S. Patent 10,367,654
- "Service function chaining based on resource availability in the time dimension," U.S. Patent 10,432,537
- "Just-enough-time provisioning of service function chain resources," U.S. Patent 10,432,552
- "Container cabling systems and methods," U.S. Patent 10,499,533

Recognitions & awards

CALI Excellence for the Future Award® (highest grade), Legal Analysis & Writing

2021

Additional insights

Publications

- W. Xie, J. Jue, Q. Zhang, X. Wang, Q. She, P. Palacharla, and M. Sekiya, "Survivable impairment-constrained virtual optical network mapping in flexible-grid optical networks," in IEEE/OSA Journal of Optical Communications and Networking, vol. 6, no. 11, pp. 1008-1017, November 2014
- W. Xie, J. Jue, X. Wang, Q. Zhang, Q. She, P. Palacharla, and M. Sekiya, "Regenerator site selection for mixed line rate optical networks," in IEEE/OSA Journal of Optical Communications and Networking, vol. 6, no. 3, pp. 291-302, March 2014
- W. Xie, N. Mao and K. Rundberget, "Cost Comparisons of Backhaul Transport Technologies for 5G Fixed Wireless Access," 2018 IEEE 5G World Forum (5GWF), Silicon Valley, CA, 2018, pp. 159-163
- W. Xie, Q. She and K. Rundberget, "Transponder pool planning for wavelength on demand services," 2016 Optical Fiber Communications Conference and Exhibition (OFC), Anaheim, CA, 2016, pp. 1-3
- W. Xie, J. Zhu, C. Huang, M. Luo and W. Chou, "Network virtualization with dynamic resource pooling and trading mechanism," 2014 IEEE Global Communications Conference, Austin, TX, 2014, pp. 1829-1835
- W. Xie, J. Jue, X. Wang, Q. Zhang, Q. She, P. Palacharla, and M. Sekiya, "Cost-optimized design of flexible-grid optical networks considering regenerator site selection," 2013 IEEE Global Communications Conference (GLOBECOM), Atlanta, GA, 2013, pp. 2358-2363
- W. Xie, Y. Zhu and J. P. Jue, "Energy-efficient impairment-constrained 3R regenerator placement in optical networks," 2012 IEEE International Conference on Communications (ICC), Ottawa, ON, 2012, pp. 3020-3024
- W. Xie, J. Jue, X. Wang, Q. Zhang, Q. She, P. Palacharla, and M. Sekiya, "Regenerator pool site selection for mixed line rate optical networks," 2012 IEEE International Conference on Communications (ICC), Ottawa, ON, 2012, pp. 3084-3088

Services

Patent

Industries

Electrical & Computer Technology
Software & Internet
Hardware
Consumer Electronics
Artificial Intelligence
Digital Health
Digital Media & E-Commerce
Financial, Business & FinTech Services
Telecommunications

Admissions

U.S. Patent and Trademark Office (2020)

Languages

English
Mandarin Chinese

Education

Ph.D., Telecommunications Engineering, University of Texas at Dallas (2014)
M.S., Telecommunications Engineering, University of Texas at Dallas (2013)
B.E., Information Engineering, Beijing University of Posts and Telecommunications (2010)
