ZEBO YANG

Washington University in St. Louis, MO 63130
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EDUCATION

Washington University in St. Louis Aug 2021 - Present
Ph. D. student in Computer Science

- Advisor: Prof. Raj Jain
- Research Area: Quantum Computing, Quantum Networks, Security, Blockchains, and Machine Learning.
- Teaching Assistant: CSE574S: Recent Advances in Wireless and Mobile Networking (Fall 2022 and Fall 2020); CSE473S: Introduction to Computer Networks (Spring 2022); CSE570S: Recent Advances in Networking (Fall 2021 and Fall 2023)

Washington University in St. Louis Aug 2019 - 2021
Visiting Research Associate (Hosted by Prof. Raj Jain)

Waseda University Aug 2017 - 2019
Master's in Computer Engineering

- Advisor: Prof. Tatsuo Nakajima
- Research Area: Ubiquitous Computing, Distributed Systems, Internet of Things.
- Thesis: Sloth: A Reconfigurable Compiler for Task-based Intermittent Programming

Guangdong University of Foreign Studies Aug 2008 - 2012
Bachelor's in Computer Engineering

- Thesis: Image Smoothing Based on Partial Differential Equation

EXPERIENCE

DJI, Inc. Jul 2015 - 2017
Senior Software Engineer *Shenzhen, China*

- Role: Head of the hybrid-app team in the department of Research and Development (R&D).
- Responsibility: Leading the design and development of hybrid software application, including DJI Assitant 2, DJI Ground Station, Drone Simulator Game, and the internal hybrid-app framework.

Misfit Wearables Jul 2014 - 2015
Senior Web Developer *Shenzhen, China*

- Role: Web Product Owner.
- Responsibility: Planning and building web products such as my.misfit.com, store.misfit.com, and misfit.com.

Baidu, Inc. Jul 2011 - 2014
Senior Software Engineer *Shenzhen, China*

- Role: Full Stack Developer.
- Responsibility: Creating software and web products catering to international users.

Tencent, Inc. Jul 2010 - Oct 2010
Web Engineering Intern *Shenzhen, China*

- Role: Intern Software Engineer.
- Responsibility: Developing the web interface for Tencent Pay (now known as Wechat Pay).

PUBLICATIONS

Zebo Yang, Ali Ghubaish, Raj Jain, Hassan Shapourian, and Alireza Shabani. Asynchronous entanglement routing for the quantum internet. *AVS Quantum Science*, 6(1), 2024

Ali Ghubaish, **Zebo Yang**, Aiman Erbad, and Raj Jain. Lemda: A novel feature engineering method for intrusion detection in iot systems. *IEEE Internet of Things Journal*, pages 1–1, 2023

Zebo Yang, Haneen Alfauri, Behrooz Farkiani, Raj Jain, Roberto Di Pietro, and Aiman Erbad. A survey and comparison of post-quantum and quantum blockchains. *IEEE Communications Surveys & Tutorials*, pages 1–1, 2023

Zebo Yang, Maede Zolanvari, and Raj Jain. A survey of important issues in quantum computing and communications. *IEEE Communications Surveys & Tutorials*, 25(2):1059–1094, 2023

Tara Renduchintala, Haneen Alfauri, **Zebo Yang**, Roberto Di Pietro, and Raj Jain. A survey of blockchain applications in the fintech sector. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(4):185, 2022

Zebo Yang, Tara Salman, Raj Jain, and Roberto Di Pietro. Decentralization using quantum blockchain: A theoretical analysis. *IEEE Transactions on Quantum Engineering*, 3:1–16, 2022

Maede Zolanvari, **Zebo Yang**, Khaled Khan, Raj Jain, and Nader Meskin. Trust xai: Model-agnostic explanations for ai with a case study on iiot security. *IEEE internet of things journal*, 2021

Zebo Yang, Ali Ghubaish, Devrim Unal, and Raj Jain. Factors affecting the performance of sub-1 ghz iot wireless networks. *Wireless Communications and Mobile Computing*, 2021:1–13, 2021

Zebo Yang, Mingshu Zhang, Taili Zhang, Linhao Fu, and Tatuso Nakajima. Real world third-person with multiple point-of-views for immersive mixed reality. In *Society with Future: Smart and Liveable Cities: First EAI International Conference, SC4Life 2019, Braga, Portugal, December 4-6, 2019, Proceedings 1*, pages 97–108. Springer International Publishing, 2020

Zebo Yang. Sloth: a reconfigurable compiler for task-based intermittent programming. *Waseda University*, 2019

Zebo Yang and Tatsuo Nakajima. Connecting smart objects in iot architectures by screen remote monitoring and control. *Computers*, 7(4):47, 2018

AWARDS AND HONORS

2023	Papers featured on social media of IEEE Communications Surveys & Tutorials ($\times 2$)
2022-2023	Honors Award (top 15-20%) in Periodic Review of Doctoral Students - Washington University
2019	CSCE Department Award - Waseda University
2009-2010	2^{nd} Prize of the National Universities Open Source and Innovation Contest
	2^{nd} Prize of the National Challenge Cup Competition
2008-2012	Scholarship from the School of Informatics

RESEARCH GRANT PARTICIPATION

2023 "Building the Foundation for a Scalable and Secure Quantum Internet," awarded by the Qatar Research, Development, and Innovation (QRDI) Academic Research Grant #ARG01-0501-230053, PIs: Prof. Aiman Erbad (HBKU) and Prof. Raj Jain (WUSTL).

2023 "Asynchronous Quantum-Native Routing for Quantum Networks," awarded by the Cisco University Research Gift #86944165.

TALKS

2023 Zebo Yang, "Building Blocks of Quantum Networks," Special Topics in Quantum Computing, 544T.

2022 Zebo Yang, "Asynchronous Routing for the Quantum Internet," DSS Talk, Washington University in St. Louis.

2019 Zebo Yang, "Task-based Intermittent Programming," Ubiquitous and Distributed Computing Lab Seminar, Waseda University.

ACADEMIC ACTIVITIES

Reviewer: IEEE Network (2024); IEEE Communications Magazine (2024); Scientific Reports - Springer Nature (2024); The Journal of Supercomputing - Springer (2024); IEEE Transactions on Vehicular Technology (2023); ACM Journal on Autonomous Transportation Systems (2023); ACM CHI Conference (2021).

PATENTS

Zhuo Guo, Zhuo Xie, Haoyu Li, Wenlin Li, Ding Wang, and Zebo Yang. Flight control method and apparatus, and control device, January 30 2024. U.S. Patent 11,886,203

Zhuo Guo, Zhuo Xie, Zebo Yang, Wenlin Li, Lei Wang, Ding Wang, and Haoyu Li. Flight control method, device, and smart terminal, July 18 2019. US Patent 20190221128A1

TECHNICAL STRENGTHS

A full-stack developer with years of industry and research experience in computer/quantum systems and networks, skilled in Python, Node.js, C/C++, Go, research simulation, architecture, and software development.

Computer Languages	Python, Node.js, C/C++, etc.
Databases	NoSQL (Dynamodb, Mongodb), MySQL, etc.
Tools	Matlab, Wolfram, Vim, etc.