ZIFEI (DAVID) ZHONG

zhongz@email.sc.edu ◇ https://github.com/zfzhong

EDUCATION

University of South Carolina — *Columbia, SC*
Ph.D. candidate in Computer Science — 2022 - Present

University of Texas at Austin — *Austin, TX*
M.S. in Computer Sciences — 2006 - 2009

University of South Carolina — *Columbia, SC*
M.S. in Computer Science & Engineering — 2004 - 2006

Wuhan University — *Wuhan, China*
B.E. in Computer Science & Technology — 2000 - 2004

HONORS & AWARDS

- Student Travel Grant, ACM HotMobile — 2023
- MCD Fellowship, University of Texas at Austin — 2006
- Dean's Excellence Award, University of Texas at Austin — 2006
- Student Travel Grant, ACM SIGCOMM — 2005
- Student Travel Grant, ACM MobiCom — 2005
- Jianxin Fellowship, Wuhan University — 2004
- Scholarship for Academic Excellence, 1st rank, Wuhan University — 2003

RESEARCH EXPERIENCE

SyRex Lab, University of South Carolina — *Columbia, SC*
Research Assistant — 2022 - Present

- Working on an exercise science project that utilizes smart wearable devices to track free-living physical activity energy expenditure and sleep in children 5-12 years old.
- Working on mmWave radar technology to identify human speaking activities via active contactless sensing.
- Working on underwater communication and time synchronization for autonomous underwater robotics.

Center for Distributed & Grid Computing, University of Texas at Austin — *Austin, TX*
Research Assistant — 2007 - 2009

- Inventing and developing modern parallel computing techniques, building real systems to parallelize and speedup applications in a multi-core shared memory paradigm.

ARENA Networking Lab, University of South Carolina — *Columbia, SC*
Research Assistant — 2004 - 2006

- Working on various routing protocols for wired and wireless networks, including FIFR, LISF, LOLS, and OAPF, which address routing and fast re-routing issues caused by network disruptions.

TEACHING EXPERIENCE

University of Texas at Austin *Austin, TX*
Teaching Assistant Spring, 2009

- CS 378: Programming for Performance

University of South Carolina *Columbia, SC*
Lecturer (sub) Spring, 2024

- CSCE 416: Introduction to Computer Networks

Teaching Assistant 2004 - 2006

- CSCE 350: Data Structure & Algorithms
- CSCE 516: Computer Networks
- CSCE 212: Computer Organization and Architecture

WORK EXPERIENCE

SuperKids Academy *Shanghai, China*
Co-founder & Lead Teacher 2018 - 2022

- Teaching math for for elementary, middle, and high school students, and creating educational technology to facilitate math teaching.

Jimei Internet Technology Co., Ltd *Shanghai, China*
Co-founder & CTO 2011 - 2018

- Developing and operating an e-commerce platform to flash-sale kids clothing and toys from factories.

Bloomberg LP *New York, NY*
Financial Software Engineer 2009 - 2011

- Working on real time pricing data for index and equity options, supporting real-time data access services.
- Designing and implementing fallback mechanisms to tolerate system failures.

Google Inc *Mountain View, CA*
Software Engineer Intern Summer, 2008

- Implementing dataloaders to interact with real-time monitoring service BorgMon, and optimizing algorithms to reduce data latency.

Google Inc *Mountain View, CA*
Software Engineer Intern Summer, 2007

- Designing routing and traffic distribution protocols for high-speed switching networks that power Google's datacenters.

PROFESSIONAL SERVICES

- Reviewer, IEEE INFOCOM 2023
- Artifact Evaluation Committee, ACM MobiCom 2023

SELECTED PUBLICATIONS

1. Olivia L Finnegan, James W White III, Bridget Armstrong, Elizabeth L Adams, Sarah Burkart, Michael W Beets, Srihari Nelakuditi, Erik A Willis, Lauren von Klinggraeff, Hannah Parker, Meghan Bastyr, Xuanxuan Zhu, **Zifei Zhong**, and Robert G Weaver. "The Utility of Behavioral Biometrics in User Authentication and Demographic Characteristic Detection: A Scoping Review," Accepted to appear in *Systematic Reviews*, 2024.

2. Song Han, **Zifei Zhong**, Hongxing Li, Guihai Chen, Edward Chan, and Aloysius K Mok. "Coding-aware Multi-paht Routing in Multi-hop Wireless Networks," *In Proc. of IEEE International Performance, Computing and Communication Conference*, 2008.

3. Srihari Nelakuditi, **Zifei Zhong**, Junling Wang, Ram Keralapura, and Chen-Nee Chuah. "Mitigating Transient Loops through Interface-Specific Forwarding," *Computer Networks*, Volume 52, Issue 3, 2008.

4. Yi Li, Lili Qiu, Yin Zhang, Ratul Mahajan, **Zifei Zhong**, Gaurav Deshpande, and Eric Rozner. "Effects of Interference on Throughput of Wireless Mesh Networks: Pathologies and a Preliminary Solution," *In Proc. of HotNets-VI*, 2007.

5. **Zifei Zhong** and Srihari Nelakuditi. "On the Efficacy of Opportunistic Routing," *In Proc. of IEEE Conference on Sensor, Mesh and Ad Hoc Communications and Networks*, 2007.

6. Junling Wang, **Zifei Zhong**, and Srihari Nelakuditi. "Handling Multiple Network Failures Through Interface Specific Forwarding," *In Proc. of IEEE Globecom*, 2006.

7. **Zifei Zhong**, Junling Wang, Guor-Huar Lu, and Srihari Nelakuditi, "On Selection of Candidates for Opportunistic Any-Path Forwarding," *ACM SIGMOBILE Mobile Computing and Communications Review*, Volume 10, Issue 4, 2006.

8. Bin Ni, Naveen Santhapuri, **Zifei Zhong**, and Srihari Nelakuditi, "Routing with Opportunistically Coded Exchange in Wireless Mesh Networks," *In Proc. of WiMesh*, 2006.

9. **Zifei Zhong**, Srihari Nelakuditi, Yinzhe Yu, Sanghwan Lee, Junling Wang and Chen-Nee Chuah. "Failure Inferencing based Fast Rerouting for Handling Transient Link and Node Failures," *In Proc. of INFOCOM*, 2006.

10. Naveen Santhapuri, Junling Wang, **Zifei Zhong**, and Srihari Nelakuditi. "Piggybacked-Ack-aided Concurrent Transmissions in Wireless Networks," *Poster in ICNP*, 2005.

11. **Zifei Zhong**, Ram Keralapura, Srihari Nelakuditi, Yinzhe Yu, Junling Wang, Chen-Nee Chuah, and Sanghwan Lee. "Avoiding Transient Loops through Interface-Specific Forwarding". *In Proc. of IWQoS*, 2005.

12. Srihari Nelakuditi, Sanghwan Lee, Yinzhe Yu, Junling Wang, **Zifei Zhong**, Guor-Huar Lu, and Zhi-Li Zhang. "Blacklist-Aided Forwarding in Static Multihop Wireless Networks". *In Proc. of SECON*, 2005.