

## Xiangfeng Zhu

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CONTACT INFORMATION	650-660-0918 xfzhu@cs.washington.edu	xzhu27.me www.linkedin.com/in/xzhu
RESEARCH INTERESTS	Systems and Networking, with a focus on microservices, service mesh, and application-level networking.	
EDUCATION	<b>University of Washington</b> Ph.D., Computer Science Advisors: Prof. Arvind Krishnamurthy and Prof. Ratul Mahajan <b>University of Michigan, Ann Arbor</b> B.S., Computer Science(with honors) Advisor: Prof. Mosharaf Chowdhury	Expected: June 2026    May 2021
RESEARCH EXPERIENCE	<b>Graduate Research Assistant</b> <b>Systems Lab, University of Washington</b> <b>Advisors:</b> Prof. Arvind Krishnamurthy and Prof. Ratul Mahajan <b>Research Assistant</b> <b>Symbiotic Lab, University of Michigan</b> <b>Advisor:</b> Prof. Mosharaf Chowdhury  <b>Research Assistant</b> <b>Disorderly Lab, UC Santa Cruz</b> <b>Advisor:</b> Prof. Peter Alvaro	Sep. 2021- Now   Dec. 2018 - Aug. 2021  Mar. 2018 - Sep. 2019
PUBLICATIONS	<ol style="list-style-type: none"><li>1. <b>Xiangfeng Zhu</b>, Weixin Deng, Banruo Liu, Jingrong Chen, Yongji Wu, Thomas Anderson, Arvind Krishnamurthy, Ratul Mahajan, Danyang Zhuo, "Application Defined Networks", <i>Proceedings of the 22nd ACM Workshop on Hot Topics in Networks (HotNets 2023)</i>, Cambridge, MA, 2023</li><li>2. <b>Xiangfeng Zhu</b>, Guozhen She, Bowen Xue, Yu Zhang, Yongsu Zhang, Xuan Kelvin Zou, XiongChun Duan, Peng He, Arvind Krishnamurthy, Matthew Lentz, Danyang Zhuo, Ratul Mahajan, "Dissecting Overheads of Service Mesh Sidecars", <i>Proceedings of the 14th Symposium on Cloud Computing (SoCC 2023)</i>, Santa Cruz, CA, 2023</li><li>3. Fan Lai, Yinwei Dai, Sanjay S. Singapuram, Jiachen Liu, <b>Xiangfeng Zhu</b>, Harsha Madhyastha, Mosharaf Chowdhury, "FedScale: Benchmarking Model and System Performance of Federated Learning at Scale", <i>Proceedings of the 39th International Conference on Machine Learning (ICML 2022)</i>, Baltimore, MD, 2022</li><li>4. Sebastian Burckhardt, Badrish Chandramouli, Chris Gillum, David Justo, Konstantinos Kallas, Connor McMahon, Christopher S. Meiklejohn, <b>Xiangfeng Zhu</b>, "Netherite: Efficient and Reliable Execution for Stateful Serverless Applications", <i>Proceedings of the 48th International Conference on Very Large Databases (VLDB 2022)</i>, Sydney, Australia, 2022</li><li>5. Fan Lai, Yinwei Dai, <b>Xiangfeng Zhu</b>, Harsha Madhyastha, Mosharaf Chowdhury, "FedScale: Benchmarking Model and System Performance of Federated Learning", <i>Proceedings of the First Workshop on Systems Challenges in Reliable and Secure Federated Learning (ResilientFL 2021)</i>, Virtual, 2021, <b>Best Paper Award</b></li></ol>	

6. Fan Lai, **Xiangfeng Zhu**, Harsha Madhyastha, Mosharaf Chowdhury, "Oort: Informed Participant Selection for Scalable Federated Learning", *Proceedings of the 15th USENIX Symposium on Operating Systems Design and Implementation (OSDI 2021)*, Virtual, 2021 (Acceptance Rate: 18.79%), **Distinguished Artifact Award**
7. Fan Lai, Jie You, **Xiangfeng Zhu**, Harsha Madhyastha, Mosharaf Chowdhury, "Sol: Fast Distributed Computation Over Slow Networks", *Proceedings of the 17th USENIX Symposium on Networked Systems Design and Implementation (NSDI 2020)*, Santa Clara, CA, 2020 (Acceptance Rate: 18.36%)
8. Lennart Oldenburg, **Xiangfeng Zhu**, Kamala Ramasubramanian, Peter Alvaro, "Fixed It For You: Protocol Repair Using Lineage Graphs", *Proceedings of the 9th biennial Conference on Innovative Data Systems Research (CIDR 2019)*, Asilomar, CA, 2019

## MENTORING

### Application Defined Networks

- May 2023: FOCI Application Networking Workshop
- May 2023: CSE 461: Introduction to Computer Communication Networks (Guest Lecture)
- Nov 2023: HotNets 2023

### Dissecting Overheads of Service Mesh Sidecars

- Nov 2023: Istio Day North America 2023
- Nov 2023: SoCC 2023

## WORK EXPERIENCE

### Uber

*PhD Software Engineer Intern, Service Mesh Team*  
Mentor: Dr. Hongqiang (Harry) Liu

June 2023 - Sep. 2023

### VMware Research

*Research Intern*  
Mentor: Dr. Radhika Niranjana Mysore

June 2022 - Sep. 2022

### Microsoft Research

*Research Intern , RiSE Group*  
Mentor: Dr. Sebastian Burckhardt

May 2021 - Aug. 2021

### Databricks

*Software Engineer Intern , Serverless Team*

May 2020 - Aug. 2020

### Dropbox

*Software Engineer Intern , Filesystem Team*

May 2019 - Aug. 2019

## PROFESSIONAL ACTIVITIES

- **Virtual Chair:** WORDS 2022
- **Program Committee:** NeurIPS(Datasets and Benchmarks Track) 2022, EuroSys 2022 (Shadow PC), IMC 2022 (Shadow PC)
- **Student Volunteer:** SoCC 2021, SIGCOMM 2021
- **Artifact Evaluation Committee:** SIGCOMM 2021, OSDI 2021, EuroSys 2021, JSys 2021

- OTHER ACTIVITIES
- **Area Chair (System):** UW CSE PhD Admissions Committee, 2022
  - **Reader:** UW CSE PhD Admissions Committee, 2021
  - **Mentor:** UW CSE PhD Pre-Application Mentorship Service (PAMS), 2021
- HONORS & AWARDS
- **Best Paper Award**, ACM SOSP ResilientFL, 2021  
For *FedScale: Benchmarking Model and System Performance of Federated Learning*
  - **Distinguished Artifact Award**, USENIX OSDI, 2021  
For *Oort: Efficient Federated Learning via Guided Participant Selection*
  - **Allen School Computer Science & Engineering Research Fellowship**, 2021
  - **Conference Student Grant**, HotNets '22, OSDI '20, FAST '21, NSDI '21, OSDI '21
- MENTORING
- **Banruo Liu**, Tsinghua University, 2022 - Now  
– Project: Application Defined Networks
  - **Yuyao Wang**, Nanjing University, 2023 - Now  
– Project: Application Defined Networks
  - **Fenet Guyassa**, Bonney Lake High School, 2023 - Now  
– Project: Characterizing Service Mesh Overheads
  - **Ami Oka**, University of Washington, 2023 - 2023  
– Project: Characterizing Service Mesh Overheads