Xiangfeng Zhu

✉ xzhu0027@gmail.com · ℹ xzhu27.me · 📞 650-660-0918 · ⦿ github.com/Romero027 · in xzhu

Summary

Ph.D. candidate in Computer Science with award-winning research published at top venues (NSDI, OSDI, ICML, and VLDB). Industry experience at Uber, VMware, Microsoft, and Databricks, specializing in networking, distributed systems, and cloud infrastructure. Systems I (co-)developed have been deployed or adopted by companies including Cisco, Microsoft, and LinkedIn.

Education

University of Washington *Ph.D.*, Computer Science Expected: June 2026
Advisors: Prof. Arvind Krishnamurthy and Prof. Ratul Mahajan
University of Michigan *B.S.(with honors)*, Computer Science May 2021

👥 Experiences

System Lab University of Washington Sep. 2021 - Now
Graduate Research Assistant

- Lead project on application-defined networks, designing tailored, high-performance RPC stacks.
- Developed tools to systematically analyze RPC performance in production-like environments, providing insights into latency bottlenecks in service mesh deployments.

Uber Seattle, WA June 2023 - Sep. 2023
Research Intern Service Mesh Team

- Designed distributed metrics aggregation framework across thousands of microservices, enabling fine-grained latency and resource attribution.
- Prototyped what-if routing and scaling analysis tool, improving operational decision efficiency.

Microsoft Research Remote May 2021 - Aug. 2021
Research Intern RiSE Group

- Contributed to Netherite, an efficient execution engine for stateful serverless applications.
- Designed and implemented a resource-efficient scheduling algorithm for serverless workloads.

Databricks Remote May 2020 - Aug. 2020
Software Engineer Intern Serverless Team

- Built zero-downtime upgrade framework for Spark clusters using rolling updates and cluster pools.
- Built an efficient node recycling mechanism that reduced cluster startup latency.

Additional internships at Dropbox and VMware Research.

Skills

- Programming: Java, C, C++, Python, Go
- Systems & Tools: Docker, Kubernetes, Envoy, Istio, eBPF, Prometheus, Grafana, Jaeger
- Areas: Distributed Systems, Networking, RPC Frameworks, Service Mesh, Resource Management

Selected Publications

- High-level Programming for Application Networks, NSDI 2025
- Dissecting Overheads of Service Mesh Sidecars, SoCC 2023
- Oort: Efficient Federated Learning via Guided Participant Selection, OSDI 2021