Zeying Zhu

Email: zeyingz@umd.edu | **Homepage**: https://zzylol.github.io/

RESEARCH INTEREST

My research interests lie broadly in data systems, distributed systems, and approximate algorithms. Specifically, I am interested in designing approximate computing systems for cloud telemetry and storage by leveraging sketching, sampling, and sublinear algorithms in conjunction with system stack co-design.

EDUCATION

University of Maryland, College Park, US

- Ph.D. in Computer Science (GPA: 4.0/4.0)   Aug. 2023–Present
  Advisor: Prof. Alan Zaoxing Liu

Boston University, US

- Ph.D. in Computer Engineering (GPA: 4.0/4.0)   Sept. 2021-Aug. 2023
  Advisor: Prof. Alan Zaoxing Liu

Xi'an Jiaotong University, China

- B.E. in Computer Science (Honors)   Sept. 2017–July 2021
- GPA: 4.11/4.3, rank:1/33

PUBLICATIONS

[1] **Zeying Zhu**, Jonathan Chamberlain, Kenny Wu, David Starobinski, Zaoxing Liu. "Approximation-First Timeseries Query At Scale", *in Proceedings of the VLDB Endowment*, Volume 18, 2025 (**VLDB'25**).

[2] **Zeying Zhu**, Yibo Zhao, Zaoxing Liu. "In-Memory Key-Value Store Live Migration with NetMigrate", *in Proceedings of the 22nd USENIX Conference on File and Storage Technologies* (**FAST '24**), Santa Clara, CA, February 27-29, 2024.

[3] **Zeying Zhu**[*], Kan Wu[*], and Zaoxing Liu. "Arya: Arbitrary Graph Pattern Mining with Decomposition-based Sampling", *in Proceedings of the 20th USENIX Symposium on Networked Systems Design and Implementation* (**NSDI '23**), Boston, MA, April 17-19, 2023.

[4] Jonathan Chamberlain, Jilin Zheng, **Zeying Zhu**, Zaoxing Liu, David Starobinski. "Exploiting Kubernetes Autoscaling for Economic Denial of Sustainability", *in **SIGMETRICS'25***.

[5] Jaechan An, **Zeying Zhu**, Ian Miers, Zaoxing Liu. "Towards Verifiable Network Telemetry without Special Purpose Hardware", *in **HotNets'25***

DEMOS

[6] **Zeying Zhu**, Zaoxing Liu. "Rearchitecting Approximation-First Cloud Telemetry", *in SIGCOMM Poster and Demo'25*.

WORK EXPERIENCE

Research Intern | **Transport Protocols with Erasure Coding for Wide Area Networks**   May 2025–Aug. 2025
Mentors: Shiyu Liu, Vinh The Lam, Nadeen Gebara, SPARC, Microsoft, CA

Research Intern | **5G Cyberattack Detection with Sketch-based Telemetry**   May 2022–Aug. 2022
Mentors: Stefan Saroiu, Alec Wolman, Azure for Operators (AFO), Microsoft, WA

Research Intern | **Streaming Networking Communication Library**   Sept. 2020–May 2021
Mentor: Zhixiong Niu, Network Research Group, Microsoft Research Asia, Beijing

TEACHING EXPERIENCE

Guest Lecturer | **CMSC818Q: Cloud Networking and Computing,** University of Maryland   Spring 2025

- Guest lecturer on Cloud-native observability and Prometheus.

Teaching Assistant | **EC 527 High Performance Programming with Multicore and GPUs**, Boston University   Spring 2023

Instructor: Prof. Martin Herbordt

- Guest lecturer on OpenMP.

Teaching Assistant | **EC 528 Cloud Computing**, Boston University   Fall 2022

Instructor: Prof. Alan Zaoxing Liu

MENTORING EXPERIENCE

- Sree Gnanesh Dommeti (Master at UMD, Fall 2025): Sketch-based Measurement for Cloud-Native Architectures
- Leo Wang (undergraduate at UMD, Fall 2025): Sketch-based Measurement for Cloud-Native Architectures
- Yancheng Yuan (PhD Student at UMD, Fall 2025): Sketch-based Measurement for Cloud-Native Architectures
- Sie Deta Dirganjaya (undergraduate at UDINUS, Summer 2025-Present): Sketch-based Measurement for Cloud-Native Architectures
- Phan Nguyen (undergraduate at UMD, Spring 2025): Sketch-based Measurement for Cloud-Native Architectures
- Kenny Wu (undergraduate at UMD, Spring/Summer 2024), co-authored [1] (VLDB'25)
- Yibo Zhao (ShanghaiTech University->PhD student at University of Maryland, Summer 2022-Spring 2023), co-authored [2] (FAST'24)
- Julia Hua (Boston University, Summer/Fall 2022): In-Memory Key-Value Store Live Migration with NetMigrate

AWARDS AND HONORS

Future Faculty Fellow, Clark School of Engineering, University of Maryland	2026
Hariri Institute's Graduate Student Fellowship, Boston University	2023
Distinguished Computer Engineering Fellowship, Boston University	2021
Stars of Tomorrow Internship Award, Microsoft Research Asia	2021
SIGCOMM Student Grant, N2WOMEN Student Grant	2023, 2025
VLDB Student Grant	2025
FAST Student Grant	2024
NSDI Student Grant, Diversity Grant	2022, 2023
Outstanding Graduates, Xi'an Jiaotong University	2021
China National Scholarship (Top 1%)	2018, 2019, 2020
Outstanding Student, Xi'an Jiaotong University	2018, 2019, 2020
Silver Medal in ICPC Asia Regional Contest	2019

SERVICES

IEEE/ACM Transactions on Networking Reviewer

ACM Transactions on Database Systems Reviewer

Elsevier Computer Networks Reviewer

INFOCOMM '23 Reviewer

Artifact Evaluation Committee: CCS'24, OSDI'24, ATC'24, CoNEXT'24, SIGCOMM'24, FAST'25, OSDI'25, NSDI'26

Web Chair for HotNets'25

SKILLS

- **Programming Languages:** C/C++, Golang, Rust, Python, P4, SQL
- **Platforms/Tools:** Apache Hadoop, Docker, Kubernetes, Redis, gRPC, MPI, OpenMP, CUDA, Triton, PyTorch, Linux perf, DPDK, FD.io-VPP, Intel Tofino Programmable Switch, Intel SGX, eBPF