

# Anlan Zhang

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## EDUCATION

- University of Southern California**, Los Angeles, CA Aug. 2023 – May 2025 (Expected)  
Ph.D. Candidate in Computer Engineering  
Advisor: Prof. Feng Qian  
Research Interest: Intelligent Mobile, Multimedia, and Networked Systems
- University of Minnesota – Twin Cities**, Minneapolis, MN Aug. 2019 – Jul. 2023  
Ph.D. Candidate in Computer Science  
M.S. in Computer Science  
Advisor: Prof. Feng Qian  
Transferred to University of Southern California with my Ph.D. advisor
- Beihang University**, Beijing, China Sept. 2015 – Jun. 2019  
B.E. in Computer Science and Technology  
GPA: 3.77 / 4.0, Ranking: 20 / 214

## EXPERIENCE

- Graduate Research Assistant @ University of Southern California**, Los Angeles, CA Aug. 2023 – Present  
Supervisor: Prof. Feng Qian
- Research Scientist/Engineer Intern @ Adobe Research**, San Jose, CA May 2024 – Aug. 2024  
Mentor: Dr. Stefano Petrangeli  
Project: VLM-assisted visual decomposition for design ideation.
- Research Scientist/Engineer Intern @ Adobe Research**, San Jose, CA May 2023 – Jul. 2023  
Mentor: Dr. Stefano Petrangeli  
Project: Low-latency image live co-editing.
  - Designed a streaming-friendly FLIF-based lossless compression algorithm for image live co-editing.
  - Proposed a fast meta-adaptive context modeling approach for image live co-editing data.
  - Analyzed the latency and compression ratio trade-offs of the above approaches.
- Graduate Research Assistant @ University of Minnesota**, Minneapolis, MN Aug. 2019 – May 2023  
Supervisor: Prof. Feng Qian
- Ph.D. Software Engineer Intern @ RP Core - Video, Meta**, Seattle, WA May 2022 – Aug. 2022  
Intern Manager: Dr. Chia-Yang Tsai  
Project: Lossy depth image compression for holographic calling.
  - Developed pre- and post- processing algorithms to improve the efficiency of depth map stream compression.
  - Located and fixed bugs in the depth map compression codebase, and refined the internal design documentation.

## PUBLICATIONS

### Conference Papers

#### [SenSys24] Boosting Collaborative Vehicular Perception on the Edge with Vehicle-to-Vehicle Communication

Ruiyang Zhu, Xiao Zhu, **Anlan Zhang**, Xumiao Zhang, Jiachen Sun, Feng Qian, Hang Qiu, Z Morley Mao, and Myungjin Lee

In Proceedings of the 22nd ACM Conference on Embedded Networked Sensor Systems, 2024

#### [MM24] An In-depth Study of Bandwidth Allocation across Media Sources in Video Conferencing

Zejun Zhang, Xiao Zhu, **Anlan Zhang**, and Feng Qian

In ACM Multimedia 2024, 2024

**Best Student Paper Award (2/4385 = 0.05%)**

**Best Paper Nomination (26/4385 = 0.59%)**

**Oral Presentation (174/4385 = 3.97%)**

#### [SIGCOMM24] Dissecting Carrier Aggregation in 5G Networks: Measurement, QoE Implications and Prediction

Wei Ye, Xinyue Hu, Steven Sleder, **Anlan Zhang**, Udhaya Kumar Dayalan, Ahmad Hassan, Rostand A. K. Fezeu, Akshay Jajoo, Myungjin Lee, Eman Ramadan, Feng Qian, and Zhi-Li Zhang

In Proceedings of the ACM SIGCOMM 2024 Conference, 2024

#### [MobiCom24] MuV<sup>2</sup>: Scaling up Multi-user Mobile Volumetric Video Streaming via Content Hybridization and Sharing

Yu Liu, Puqi Zhou, Zejun Zhang, **Anlan Zhang**, Bo Han, Zhenhua Li, and Feng Qian

In Proceedings of the 30th Annual International Conference on Mobile Computing and Networking, 2024

#### [NSDI24] Habitus: Boosting Mobile Immersive Content Delivery through Full-body Pose Tracking and Multi-path Networking

**Anlan Zhang**, Chendong Wang, Yuming Hu, Ahmad Hassan, Zejun Zhang, Bo Han, Feng Qian, and Shichang Xu

In 21st USENIX Symposium on Networked Systems Design and Implementation (NSDI 24), 2024

#### [SIGCOMM22] Vivisecting Mobility Management in 5G Cellular Networks

Ahmad Hassan, Arvind Narayanan, **Anlan Zhang**, Wei Ye, Ruiyang Zhu, Shuowei Jin, Jason Carpenter, Z. Morley Mao, Feng Qian, and Zhi-Li Zhang

In Proceedings of the ACM SIGCOMM 2022 Conference, 2022

#### [NSDI22] YuZu: Neural-enhanced Volumetric Video Streaming

**Anlan Zhang**, Chendong Wang, Bo Han, and Feng Qian

In 19th USENIX Symposium on Networked Systems Design and Implementation (NSDI 22), 2022

#### [MobiCom21] EMP: Edge-assisted Multi-vehicle Perception

Xumiao Zhang, **Anlan Zhang**, Jiachen Sun, Xiao Zhu, Y. Ethan Guo, Feng Qian, and Z. Morley Mao

In Proceedings of the 27th Annual International Conference on Mobile Computing and Networking, 2021

#### [AAAI19] Perceptual-sensitive GAN for Generating Adversarial Patches

Aishan Liu, Xianglong Liu, Jiaxin Fan, Yuqing Ma, **Anlan Zhang**, Huiyuan Xie, and Dacheng Tao

In Proceedings of the AAAI Conference on Artificial Intelligence, 2019

### Workshop

#### [HotMobile24] The Case for Boosting Mobile Application QoE via Smart Band Switching in 5G/xG Networks

Ahmad Hassan, Wei Ye, **Anlan Zhang**, Jason Carpenter, Ruiyang Zhu, Shuowei Jin, Feng Qian, Z. Morley Mao, and

Zhi-Li Zhang

In Proceedings of the 25th International Workshop on Mobile Computing Systems and Applications, 2024

**[HotMobile21] Efficient Volumetric Video Streaming through Super Resolution**

*Anlan Zhang, Chendong Wang, Bo Han, and Feng Qian*

In Proceedings of the 22nd International Workshop on Mobile Computing Systems and Applications, 2021

**[ICDEW19] Driving Big Data: A First Look at Driving Behavior via A Large-scale Private Car Dataset**

*Tong Li, Ahmad Albilal, Anlan Zhang, Mohammad A. Hoque, Dimitris Chatzopoulos, Zbu Xiao, Yong Li, and Pan Hui*

In 2019 IEEE 35th International Conference on Data Engineering Workshops (ICDEW), 2019

**Poster**

**[MobiSys20] Poster: Mobile Volumetric Video Streaming Enhanced by Super Resolution**

*Anlan Zhang, Chendong Wang, Xing Liu, Bo Han, and Feng Qian*

In Proceedings of the 18th International Conference on Mobile Systems, Applications, and Services, 2020

**Preprint**

**[Preprint24] A First Look at GPT Apps: Landscape and Vulnerability**

*Zejun Zhang, Li Zhang, Xin Yuan, Anlan Zhang, Mengwei Xu, and Feng Qian*

arXiv preprint arXiv:2402.15105, 2024

## HONORS AND AWARDS

**2024:** ACM Multimedia 2024 Best Student Paper Award ([2/4385 = 0.05%](#))

**2024:** ACM Multimedia 2024 Best Paper Nomination ([26/4385 = 0.59%](#))

**2024:** ACM Multimedia 2024 Outstanding Reviewer

**2024:** NSDI 2024 Grant

**2022:** ICNP 2022 Grant, NSDI 2022 Grant, MobiCom 2021 Grant

**2019:** Outstanding Undergraduate Thesis, Beihang University, [Top 10%](#)

## TEACHING EXPERIENCE

### University of Minnesota – Twin Cities

**CSCI 4061: Introduction to Operating Systems**, Fall 2022

Graduate Teaching Assistant, with Prof. Jon Weissman

## ACADEMIC SERVICES

### Conference Organizer:

ACM IoT 2024 (Publicity and Social Media Chair)

### Conference Technical Program Committee/Reviewer:

IEEE VR 2025 (Reviewer)

ACM WWW 2025 (Reviewer)

ACM ImmerCom 2024 (Technical Program Committee)

USENIX NSDI 2025 (Pre-Review Task Force)

ACM Multimedia 2024 ([Outstanding Reviewer](#))

ACM EMS 2024 (Program Committee)

USENIX ATC 2024 (External Review Committee)

ACM WWW 2023 (Subreviewer)

**Journal Reviewer:**

IEEE Internet of Things Journal

IEEE Transactions on Mobile Computing

ACM Computing Surveys

IEEE Network Magazine

Elsevier Journal of Network and Computer Applications

**Shadow Program Committee:**

ACM EuroSys 2024

ACM EuroSys 2023

**Artifact Evaluation Committee:**

USENIX FAST 2024

ACM SIGCOMM 2023

USENIX OSDI/ATC 2023

ACM EuroSys 2023

## TECHNICAL SKILLS

**Programming Languages:** C, C++, Java, Python, TypeScript, Verilog, Assembly Language

**Languages:** English, Mandarin Chinese