Chendong Wang

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EDUCATIONS

University of Wisconsin-Madison

Ph.D. in Computer Science

Madison, US

Sept 2021 - Present

University of Minnesota

Master of Science in Computer Science (GPA: 3.926/4.0)

Minneapolis, US

Sept 2019 - Jun 2021

Fudan University

B.S of Theoretical and Applied Mechanics, Top 20%; Minor in Data Science

Shanghai, China Sept 2014 - Jul 2019

PUBLICATIONS

CAS: An Edge-Centric Networking Architecture for Disaggregated Storage

In submission

Chendong Wang, Ming Liu

Habitus: Boosting Mobile Immersive Content Delivery through Full-body Pose Tracking and Multipath Networking

NSDI 2024

Anlan Zhang, Chendong Wang, Yumin Hu, Ahmad Hassan, Zejun Zhang, Bo Han, Feng Qian, Shichang Xu.

YuZu: Super-resolution Enhanced Volumetric Video Streaming

NSDI 2022

Anlan Zhang, Chendong Wang, Bo Han, Feng Qian.

Efficient Volumetric Video Streaming Through Super Resolution

Hotmobile 2021

Anlan Zhang, Chendong Wang, Bo Han, Feng Qian.

Mobile Volumetric Video Streaming Enhanced by Super Resolution

MobiSys 2020 Poster

Anlan Zhang, Chendong Wang, Xing Liu, Bo Han, Feng Qian.

Firefly: Untethered Multi-user VR for Commodity Mobile Devices

USENIX ATC 2020

Xing Liu, Christina Vlachou, Feng Qian, Chendong Wang, and Kyu-Han Kim.

Internships

Microsoft Research Asia (MSRA)

Shanghai

Research Intern, Mentor: Prof. Lili Qiu

5/2023 - 08/2023

- Enhanced the performance of volumetric video streaming by applying an inference speeding up technique called LUT. Provided a frame rate speed up by over **10X**.
- Surveyed the existing upsampling approach for 3D point clouds and drafted a conference paper for submission.

Hewlett-Packard Company (HP)

Shanghai

 $R \mathcal{E}D$ Intern

10/2018 - 05/2019

- Implemented a framework that transfer the text to voice data by adopting WaveRNN
- Researched on an NLP algorithms with capability of deduction

RESEARCH EXPERIENCE

Efficient Volumetric Video Streaming Through Super Resolution

Minneapolis, US

 ${\it University~of~Minnesota~-~Advisor:~Professor~Feng~Qian}$

09/2019 - Present

- Co-Developed a point cloud video streaming system, that leverages super-resolution method to reduce the bandwidth while maintaining visual quality
- Adopted numerous optimization methods to ensure the streaming frame rate at 30 fps

Untethered Multi-user VR for commodity Mobile Devices

Minneapolis, US

University of Minnesota - Advisor: Professor Feng Qian

12/2019 - 02/2020

- $\circ~$ Co-Developed and conducted the VR experiments on Android platform
- Co-Designed the metrics and compared the results with baselines

Application of Reinforcement Learning in Congestion Control

Shanghai

Fudan University - Advisor: Professor Yuedong Xu

06/2018 - 05/2019

- o Reproduced the result of Remy, a learning-based congestion control algorithm, as the baseline
- Worked on designing a DRL method to produce better congestion control results

Developing a Traffic Flow Prediction Method Based on LSTM

Shanghai

Fudan University (Undergraduate Thesis) - Advisor: Professor Mingmin Guo

03/2019 - 05/2019

- Modeled the basic traffic flow problem and collected dataset with video and simulation
- Developed an LSTM model that can help the decision of Automated Vehicle based on surrounding traffic flow

Developing a Data Visualization Program Based on VR Platform

Columbus, US

Ohio State University - Advisor: Professor Chen Jian

07/2018 - 10/2018

- o Implemented a visualization system for scientific data in VR environment to support quantum physics research
- o Developed several algorithms to improve the visual effect of the data with high density

Honors & Awards

- Third prize, China Undergraduate Mathematical Contest in Modeling 2017
- Third prize, Elite Experiment Scholarship 2017, 2018

TECHNICAL SKILLS

- Programming Python, C, C++, Matlab
- Math Skills Probability & Statistics, Pattern Recognition & Machine Learning, Measure Theory, Discrete Mathematics