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

An Edge-Centric Networking Architecture for Disaggregated Storage
In submission

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)
Research Intern, Mentor: Prof. Lili Qiu
Shanghai
5/2023 - 08/2023

- **Enhanced the performance of volumetric video streaming by applying point-cloud based Look-up Table (LUT) to existing neural-based SR approach. Provided a frame rate speed up by over 10X.**
- **Surveyed the existing upsampling approach for pointcloud-based volumetric video and drafted a conference paper for submission.**

Hewlett-Packard Company (HP)
R&D Intern
Shanghai
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
University of Minnesota - Advisor: Professor Feng Qian
Minneapolis, US
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
University of Minnesota - Advisor: Professor Feng Qian
Minneapolis, US
12/2019 - 02/2020

- 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
Fudan University - Advisor: Professor Yuedong Xu
Shanghai
06/2018 – 05/2019

- - 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*
  - Implemented a visualization system for scientific data in VR environment to support quantum physics research
  - 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