Jing Chen

Master Student

j-chen20@mails.tsinghua.org.cn | chenjing98.github.io | chenjing98 | jing-chen-2747771b4

Education

Tsinghua University *Beijing, China*

Bachelor of Electronic Information Science and Technology, GPA: 3.6/4.0 *Sep. 2016 - Jun. 2020*

- Understanding basic computer application theories.
- Understanding the theories of Circuit and System, Signal and Information Processing, Electromagnetic Field and Microwave Technology.

Tsinghua University *Beijing, China*

Master in the Institute for Network Sciences and Cyberspace *Sep. 2020 - now*

- Research interests: Video Streaming, Real-Time Communication, Network Transport, Network Routing Optimization

Skills

Languages	C, C++, Python, Matlab, Verilog, HTML, JavaScript
ML Platforms	Tensorflow, PyTorch
Network Emulator	NS-3

Publications

HierTopo: Towards High-Performance and Efficient Topology Optimization for Dynamic Networks

First Author *Sep. 2020 - Oct. 2020*

- An efficient algorithm to design real-time network topologies for dynamic networks (e.g., RDCN, WSN, satellite network).
- Accepted by IEEE/ACM International Symposium on Quality of Service (IWQoS) 2021.

PiTree: Practical Implementation of ABR Algorithms Using Decision Trees

Second Author *Jan. 2019 - Apr. 2019*

- A general, high-performance and scalable framework that can faithfully convert sophisticated ABR (Adaptive Bitrate) algorithms into lightweight decision trees to reduce deployment overhead.
- Published in proceedings of ACM Multimedia 2019.
- Implemented in Tencent.

Physical-Layer Informed Multipath Redundancy Optimization for Mobile Real-Time Communication

First Author *Mar. 2021 - May. 2021*

- An algorithm that optimizes the multipath redundancy rates to strike a good balance between low stuttering rate and high goodput for mobile RTC applications.
- Presented in of ACM APNet 2021 (poster).

Always Heading for the Peak: Learning to Route with Domain Knowledge

First Author *Dec. 2019 - Jan. 2020*

- An improved design for learning-based routing methods, which smartly enforces routing constraints by introducing a novel decision variable.
- Accepted by IEEE Infocom poster 2020.

Courses

Computer Network Technology and Experiment

Experiment *Spring Term 2018-2019*

- Experiments including configuration of switches and routers, Socket programming, webpage writing with HTML, social web crawler, and SDN simulation based on Mininet and Floodlight.

Electronic Engineering comprehensive training

Experiment *Summer Term 2017-2018*

- **Fundamental Experiment of Digital Logic and Processor** – 32-bit MIPS processor design with team effort.
- **Electronic circuit course design** – Station platform wireless timer design.
- **Advanced Matlab Programming and Its Application** – Voice signal synthesis and analysis & game ”Match and Link” implementation with MATLAB.

Internship

Wintone *Beijing, China*

Deep Learning Research Intern *Jul. 2019 - Aug. 2019*

- Task: High-quality handwritten Chinese character generation with neural network model.
- My design adopted a GAN (Generative Adversarial Network) model and creatively train a Chinese character classifier as GAN discriminator to improve the quality of character samples significantly.