

# Jaehong Kim

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RESEARCH INTERESTS	High Performance Networked Systems, Deep Learning based Video Delivery, Video Analytics	
EDUCATION	<b>Korea Advanced Institute of Science and Technology (KAIST)</b> Ph.D., in School of Electrical Engineering (Advisor: Prof. Dongsu Han)	FEB. 2020 ~ Present
	<b>Korea Advanced Institute of Science and Technology (KAIST)</b> M.S., in School of Electrical Engineering (Advisor: Prof. Dongsu Han)	AUG. 2018 ~ FEB. 2020
	<b>Korea Advanced Institute of Science and Technology (KAIST)</b> B.S., in School of Electrical Engineering (Cum Laude)	FEB. 2014 ~ AUG. 2018
PUBLICATIONS	<b>Conference</b>	
	1. <b>Neural-Enhanced Live Streaming: Improving Live Video Ingest via Online Learning</b> Jaehong Kim*, Youngmok Jung*, Hyunho Yeo, Juncheol Ye and Dongsu Han <b>ACM SIGCOMM 2020</b> (Acceptance Rate 53/250: 21.2%)	
	2. <b>Neural Adaptive Content-aware Internet Video Delivery</b> Hyunho Yeo, Youngmok Jung, Jaehong Kim, Jinwoo Shin and Dongsu Han <b>USENIX OSDI 2018</b> (Acceptance Rate 47/257: 18.2%)	
HONORS AND AWARDS	<b>28th Samsung Humantech Paper Award</b> Gold Prize, Communication & Networks Samsung Electronics Inc., Feb. 2022	
	<b>Donghwa Industry Moon Daewon AI Research Scholarship</b> KAIST, 2020	
	<b>USENIX OSDI Student Grant</b> USENIX, 2018	
RESEARCH PROJECTS	1. <b>Traffic Optimization for Next Generation RAN</b> Developing a user-plane traffic optimization at LTE/5G xNodeBs for low latency in NextG RAN.	AUG. 2020 ~ Present
	2. <b>Neural-enhanced Live Ingest</b> Developed a video delivery system that integrates super-resolution DNNs with live ingest.	NOV. 2018 ~ JULY. 2020
	3. <b>Neural-enhanced Adaptive Streaming</b> Developed a video delivery system that integrates super-resolution DNNs with adaptive streaming.	NOV. 2017 ~ OCT. 2018
INVITED TALKS	1. <b>Neural-Enhanced Live Streaming: Improving Live Video Ingest via Online Learning</b> Conference talk at SIGCOMM, AUG., 2020 10 min talk: <a href="https://youtu.be/1giVlO6Rumg">https://youtu.be/1giVlO6Rumg</a> 20 min talk: <a href="https://youtu.be/avkSHrXlBSA">https://youtu.be/avkSHrXlBSA</a>	

2. **Neural Adaptive Content-aware Internet Video Delivery**

Poster & Demo Session at OSDI, OCT., 2018

Demo: <https://youtu.be/THGMSqFOxWU>

3. **NNStreamer Conference 2022 (NC22-Seoul)**

Research talk at NNStreamer Workshop, Feb., 2022

TEACHING  
EXPERIENCE

**Teaching Assistant**

1. **Advanced Computer Networking and Cloud Computing (EE618)**

SPRING 2021

2. **Network Programming (EE324)**

FALL 2020, FALL 2021

3. **SK Hynix ASK Program**

AUG. 2020

4. **Systems and Applications of Artificial Intelligence and Machine Learning (EE793)**

SPRING 2020

5. **Programming Structures for Electrical Engineering (EE209)**

SPRING 2019, FALL 2019, SPRING 2022

COURSES

*Systems and Applications of Artificial Intelligence and Machine Learning (EE793)*

SPRING 2020

*Computer Architecture (EE511)*

FALL 2019

*Startup Finance (KE1530)*

FALL 2019

*GPU Proprogramming and Its Application (EE817)*

SPRING 2019

*Advanced Computer Networking and Cloud Computing (EE618)*

SPRING 2019

*Advanced Image Restoration and Quality Enhancement (EE838)*

FALL 2018

*Recent Advances in Deep Learning (EE807)*

FALL 2018

*Operating Systems and System Programming for Electrical Engineering (EE415)*

SPRING 2018

*Deep Learning and AlphaGo (EE488)*

FALL 2017

PROFICIENT  
SKILLS

Programming Languages: C, C++, Python, UNIX shell scripting, Latex, JavaScript

Deep Learning Frameworks: Tensorflow, Pytorch

Languages: Korean (native), English