

Gyuyeong Kim
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<https://gyuyeongkim.github.io/>

RESEARCH INTERESTS	Networked Systems, Data center networking, Cloud computing and networking, Programmable dataplane, Networking support for Cloud, IoT, and AI systems.	
EDUCATION	Ph.D. in Computer Science, Korea University	Mar. 2012 - Feb. 2020
	<i>Advisor: Prof. Wonjun Lee</i>	
	B.S. in Brain and Cognitive Sciences, Korea University	Sept. 2009 - Feb. 2012
	B.S. in Computer Science, Korea University	Mar. 2008 - Feb. 2012
ACADEMIC CAREER	Exchange Student in Lund Tekniska Högskola (LTH)	Jan. 2011 - Jun. 2011
	Research Professor, Future Network Center, Korea University	Mar. 2020 - Present
FUNDED PROJECTS	Lecturer, School of Cybersecurity, Korea University	Sept. 2019 - Feb. 2020
	In-Network Resource Augmentation utilizing Reconfigurable Network Devices NRF, Grant: 294,000,000 KRW (~\$247,000)	Mar. 2020 - Feb. 2023
TEACHING EXPERIENCE	Instructor , Korea University Computer Networks (IMS301)	2020S, 2019F
	Teaching Assistant , Korea University Computer Networks (IMS301)	2019S, 2018S, 2017F
	Computer Networks (IMS2012)	2018(Summer)
	Computer Networks (CYDF316)	2016F
	Computer Networks (CYDF321)	2016S
	Computer Networks (COSE342)	2015F
	Communication Networks (CYDF305)	2014S
	Wireless Mobile Communications (CNCE407)	2013S, 2012S
	PROFESSIONAL REVIEWER	
	ACTIVITIES	
TALKS	IEEE International Conference on Computer Communications (INFOCOM), 2020	
	IEEE International Conference on Distributed Computing Systems (ICDCS), 2019	
	IEEE Transactions on Cloud Computing, 2019	
	IEEE Networking Letters, 2019	
	Tutorial: P4 SFC SDN/NFV Forum P4 WG 2019 1st Meetup , Seoul, South Korea	Apr. 19, 2019
	Service Function Chaining in P4-enabled Programmable Switches SDN/NFV Forum P4 WG 2018 2nd Meetup , Seoul, South Korea	Oct. 12, 2018
	Controller-independent Loss-aware Low Latency State Migration in Network Functions Virtualization ONOS-P4 Brigade Work Days 2017 , Seoul, South Korea	Sept. 19, 2017

JOURNAL PUBLICATIONS

1. *Gyuyeong Kim* and Wonjun Lee, "Enabling Service Queue Isolation in Multi-Tenant Data Centers," *IEEE Communications Letters (CL)*, Vol. 23, No. 11, pp. 1949-1952, November 2019.
2. *Gyuyeong Kim* and Wonjun Lee, "Absorbing Microbursts without Headroom for Data Center Networks," *IEEE Communications Letters (CL)*, Vol. 23, No. 5, pp. 806-809, May 2019.
3. *Gyuyeong Kim* and Wonjun Lee, "Tardy Flow Scheduling in Data Center Networks," *IEICE Transactions on Information and Systems (Trans. Inf.&Syst.)*, Vol. E99-D, No. 9, pp. 2400-2403, September 2016.

CONFERENCE PUBLICATIONS

1. *Gyuyeong Kim* and Wonjun Lee, "Service Function Chaining on Programmable Data Plane," to appear in *the 5th International Conference On Consumer Electronics Asia (ICCE-Asia 2020)*, Seoul, South Korea, November 2020.
2. *Gyuyeong Kim* and Wonjun Lee, "Protocol-Independent Service Queue Isolation for Multi-Queue Data Centers," to appear in *the 40th IEEE International Conference on Distributed Computing Systems (ICDCS 2020)*, Singapore, July 2020.
3. *Gyuyeong Kim* and Wonjun Lee, "Stable Matching with Ties for Cloud-assisted Smart TV Services," in *Proc. of the 14th IEEE International Conference on Consumer Electronics (ICCE 2014)*, Las Vegas, NV, January 2014.
4. *Gyuyeong Kim* and Wonjun Lee, "Cannot Take My Allocation: Enforcing Fairness by Considering Demand and Payment in Clouds," in *Proc. of the 4th International Conference on Network of the Future (NoF 2013)*, Pohang, South Korea, October 2013.
5. *Gyuyeong Kim*, Hoorin Park, Jieun Yu, and Wonjun Lee, "Virtual Machines Placement for Network Isolation in Clouds," in *Proc. of 2012 Research in Applied Computation Symposium (RACS 2012)*, San Antonio, TX, October 2012.

PATENTS

1. Wonjun Lee and *Gyuyeong Kim*, "Method for Data Processing," *Korean Patent* 10-2064679, January 3, 2020.
2. Wonjun Lee and *Gyuyeong Kim*, "Method and Device for Scheduling Flow of Packet for Reducing Delay Time Due To Retransmit of Packet," *Korean Patent* 10-1841143, March 16, 2018.

AWARDS AND HONORS

IEEE Seoul Section International Student Paper Contest Bronze Paper Award	2014
- Fault Tolerant Topology Reconfiguration in Optical Wireless Data Center Networks	
Global Ph.D. Fellowship (GPF) , NRF, South Korea	2012 - 2014
ACM-ICPC Seoul Regional Contest 10th Place	2009
National Collegiate Programming Contest Silver Prize, South Korea	2009
Oracle JavaFX Software Contest 3rd Prize	2009
ACM-ICPC Seoul Regional Contest Honorable Mentions	2008

RESEARCH EXPERIENCE

Intelligent and Autonomous Networking

- aSTEAM: App-Specialized Transport for Evolvability, Autonomicity, and Measurability, NRF, PI:*Prof. Wonjun Lee* Oct. 2018 - Dec. 2020

SDN/NFV and Programmable Networking

- Development of Core Technologies for Programmable Switch in Multi-Service Networks, IITP, PI:*Prof. Sangheon Park* Jan. 2017 - Dec. 2020

Cloud Computing and Data Center Networking

- Cloud Bridges-Piers: Optimization Technologies towards Higher Performance of Wireless Networking Cloud, NRF, PI:*Prof. Wonjun Lee* Jun. 2013 - May 2016
- A Fair Network Performance Isolation Framework in Multi-Tenancy Cloud Data Center Networks, **Global Ph.D. Fellowship**, NRF Mar. 2012 - Feb. 2014

WORK EXPERIENCE

Korea University Lecture Evaluation (KLUE) <http://klue.kr>
 - An online service providing course reviews and ratings based on student feedback at Korea University. Roughly 430,000 reviews by 42,000 members are available today
President Jan. 2011 - Feb. 2015
 - Led our team and managed the service. Maintained the service infrastructure.
Co-Founder and Junior developer Mar. 2010 - Jun. 2010
 - Designed and developed a part of the service.

REFERENCES

Available upon request.