Gyuyeong Kim

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RESEARCH INTERESTS

Networked Systems, Data center networking, Cloud computing and networking, Dataplane programmability, Networking support for Cloud, IoT, and AI systems.

EDUCATION

Ph.D. in Computer Science, Korea University Mar. 2012 - Present Advisor: Prof. Wonjun Lee B.E. in Brain and Cognitive Sciences, Korea University Sept. 2009 - Feb. 2012 B.E. in Computer Science, Korea University Mar. 2008 - Feb. 2012 Exchange Student in Lund Tekniska Högskola (LTH) Jan. 2011 - Jun. 2011 Lecturer in School of Cybersecurity, Korea University Sept. 2019 - Present

ACADEMIC CAREER

RESEARCH **EXPERIENCE**

Intelligent and Autonomous Networking

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

SDN/NFV and Programmable Networking

• Development of Core Technologies for Programmable Switch in Multi-Service Networks, IITP, PI:Prof. Sangheon Pack Jan. 2017 - Present

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

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, "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.
- 2. 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.

3. 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 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

TEACHING EXPERIENCE

Instructor, Korea University
Computer Networks (IMS301)
Computer Networks (IMS301)
Fall 2019

Teaching Assistant, Korea University

Computer Networks (IMS301)	Spring 2019
Computer Networks (IMS2012)	Summer 2018
Computer Networks (IMS301)	Spring 2018
Computer Networks (IMS301)	Fall 2017
Computer Networks (CYDF316)	Fall 2016
Computer Networks (CYDF321)	Spring 2016
Computer Networks (COSE342)	Fall 2015
Communication Networks (CYDF305)	Spring 2014
Wireless Mobile Communications (CNCE407)	Spring 2013
Wireless Mobile Communications (CNCE407)	Spring 2012

TALKS

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

Sept. 19, 2017

ONOS-P4 Brigade Work Days 2017, Seoul, South Korea

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. $Co ext{-}Founder\ and\ Junior\ developer}$ Mar. 2010 - Jun. 2010

- Designed and developed a part of the service.

REFERENCES Wonjun Lee

Wonjun LeeProfessor, School of Cybersecurity, Korea University wlee@korea.ac.kr

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