

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

**RESEARCH
INTERESTS**

Networked Systems, Data Centers, Cloud Computing, Packet Processing

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

**RESEARCH
EXPERIENCE**

Application-Specialized Network Stack
• aSTEAM: App-Specialized Transport for Evolvability, Autonomicity, and Measurability, NRF, PI: *Prof. Wonjun Lee* Oct. 2018 - Present
SDN/NFV and Programmable Networks
• Development of Core Technologies for Programmable Switch in Multi-Service Networks, IITP, PI: *Prof. Sangheon Park* Jan. 2017 - Present
Data Centers and Cloud Computing
• 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

TALKS

Tutorial: P4 SFC
SDN/NFV Forum P4 WG 2019 1st Meetup, Seoul, South Korea April. 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
Stable Matching with Ties for Cloud-assisted Smart TV Services
IEEE ICCE 2014, Las Vegas, NV Jan. 13, 2014
Cannot Take My Allocation: Enforcing Fairness by Considering Demand and Payment in Clouds
NoF 2013, Pohang, South Korea Oct. 24, 2013
Virtual Machines Placement for Network Isolation in Clouds
ACM RACS 2012, San Antonio, TX Oct. 26, 2012

PUBLICATIONS

1. **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.

2. **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.
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 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

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.

TEACHING EXPERIENCE

Teaching Assistant, Korea University
 Computer Networks (IMS301) Spring 2019
 Computer Networks (IMS2012) Summer 2018
 Computer Networks (IMS301) Spring 2018
 Computer Networks (IMS301) Fall 2017
 Class 43 (CYDF316) Fall 2016
 Class 53 (CYDF321) Spring 2016
 Computer Networks (COSE342) Fall 2015
 Class 31 (CYDF305) Spring 2014
 Wireless Mobile Communications (CNCE407) Spring 2013
 Wireless Mobile Communications (CNCE407) Spring 2012

REFERENCES

Wonjun Lee

Professor, School of Information Security, Korea University
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