Gyuyeong Kim

gykim08@korea.ac.kr
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 Pack* — 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

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," accepted to *IEEE Communications Letters* (**CL**), March 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
wlee@korea.ac.kr

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