

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

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|----------------------------|---|------------------------|
| 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, "Protocol-Independent Service Queue Isolation for Multi-Queue Data Centers," to appear in the 40th IEEE International Conference on Distributed Computing Systems (**ICDCS 2020**), July 2020.
2. *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.
3. *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.
4. *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 in Ph.D. STUDY

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.