# Gyuyeong Kim, Ph.D.
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https://gyuyeongkim.github.io/

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| **RESEARCH INTERESTS** | Networked Systems, Data center networks, Cloud computing systems, Programmable hardware, Ne... support for Cloud, Big data, and AI systems | |

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| **EDUCATION** | Ph.D. in Computer Science, Korea University | Mar. 2012 - F... |
| | *Thesis:* Buffer Sharing Mechanisms for Data Center Networks | |
| | *Advisor:* Prof. Wonjun Lee | |
| | B.S. in Computer Science, Korea University | Mar. 2008 - F... |
| | *Interdisciplinary major:* Brain and Cognitive Sciences | |

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| **ACADEMIC CAREER** | Research Professor, Future Network Center, **Korea University** | Mar. 2020 - ... |
| | Lecturer, School of Cybersecurity, **Korea University** | Sept. 2019 - F... |

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|---|---|---|
| **GRANTS** | 가변형 네트워크 디바이스를 활용한 인네트워크 자원 증강 기술 | Mar. 2020 - F... |
| | In-Network Resource Augmentation utilizing Reconfigurable Network Devices, Young Research Pro... 진연구지원사업), NRF,Grant: 294,000,000 KRW | |
| | 다중 테넌트 클라우드 데이터 센터상의 공평한 네트워크 성능 고립화 프레임워크 | Mar. 2012 - F... |
| | Fair Network Performance Isolation Framework in Multi-Tenancy Cloud Data Center Networks... Ph.D. Fellowship (글로벌박사펠로우십사업), NRF,Grant: 60,000,000 KRW | |

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| **TEACHING EXPERIENCE** | **Instructor**, Korea University | |
| | Computer Networks (IMS301) | |
| | Computer Networks (IMS301) | |
| | **Teaching Assistant**, Korea University | |
| | Computer Networks (IMS301) | 2019S, 2018... |
| | Computer Networks (IMS2012) | 2018(S... |
| | Computer Networks (CYDF316) | |
| | Computer Networks (CYDF321) | |
| | Computer Networks (COSE342) | |
| | Communication Networks (CYDF305) | |
| | Wireless Mobile Communications (CNCE407) | 2013... |

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| **PROFESSIONAL ACTIVITIES** | Reviewer |
| | 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 |

**INVITED TALKS** Tutorial: P4 SFC
**SDN/NFV Forum P4 WG 2019 1st Meetup**, Seoul, South Korea                      Apr.

Service Function Chaining in P4-enabled Programmable Switches
**SDN/NFV Forum P4 WG 2018 2nd Meetup**, Seoul, South Korea                      Oct.

Controller-independent Loss-aware Low Latency State Migration in Network Functions Virtualizat
**ONOS-P4 Brigade Work Days 2017**, Seoul, South Korea                      Sept.

**CONFERENCE PUBLICATIONS**

1. **Gyuyeong Kim** and Wonjun Lee, "Protocol-Independent Service Queue Isolation for Mul
   Data Centers," to appear in *Proc. of the 40th IEEE International Conference on Distributed Co
   Systems* (**ICDCS 2020**), Singapore, December 2020. (Acceptance rate: 17.98%=105/508)

2. **Gyuyeong Kim** and Wonjun Lee, "Service Function Chaining on Programmable Data P
   appear in *Proc. of the 5th International Conference On Consumer Electronics Asia*, Seou
   Korea, November 2020.

3. **Gyuyeong Kim** and Wonjun Lee, "Stable Matching with Ties for Cloud-assisted Smart TV S
   in *Proc. of the 14th IEEE International Conference on Consumer Electronics*, Las Vegas, NV,
   2014.

4. **Gyuyeong Kim** and Wonjun Lee, "Cannot Take My Allocation: Enforcing Fairness by Co
   Demand and Payment in Clouds," in *Proc. of the 4th International Conference on Netwo
   Future*, Pohang, South Korea, October 2013.

5. **Gyuyeong Kim**, Hoorin Park, Jieun Yu, and Wonjun Lee, "Virtual Machines Placement for
   Isolation in Clouds," in *Proc. of 2012 Research in Applied Computation Symposium*, San Anto
   October 2012.

**JOURNAL PUBLICATIONS**

1. **Gyuyeong Kim** and Wonjun Lee, "Enabling Service Queue Isolation in Multi-Tenant Data C
   *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 Cen
   works," *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," *IEIC
   actions on Information and Systems*, Vol. E99-D, No. 9, pp. 2400-2403, September 2016.

**RESEARCH EXPERIENCE**

**Intelligent and Autonomous Networking**
- aSTEAM: App-Specialized Transport for Evolvability, Autonomicity, and Measurability, NRF,
  *Wonjun Lee*                      Oct. 2018 - D

**SDN/NFV and Programmable Networking**
- Development of Core Technologies for Programmable Switch in Multi-Service Networks, IITP,
  *Sangheon Pack*                      Jan. 2017 - D

**Cloud Computing and Data Center Networking**
- Cloud Bridges-Piers: Optimization Technologies towards Higher Performance of Wireless Ne
  Cloud, NRF, PI:*Prof. Wonjun Lee*                      Jun. 2013 - M

**PATENTS**

1. Wonjun Lee and **Gyuyeong Kim**, "Method for Data Processing," *Korean Patent* 10-2064679,
   3, 2020.

2. Wonjun Lee and **Gyuyeong Kim**, "Method and Device for Scheduling Flow of Packet for
   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
- Fault Tolerant Topology Reconfiguration in Optical Wireless Data Center Networks
**Global Ph.D. Fellowship (GPF)**, NRF, South Korea                                    20
ACM-ICPC Seoul Regional Contest 10th Place
National Collegiate Programming Contest Silver Prize, South Korea
Oracle JavaFX Software Contest 3rd Prize
ACM-ICPC Seoul Regional Contest Honorable Mentions


**WORK EXPERIENCE**

**Korea University Lecture Evaluation (KLUE)** http://klue.kr
- An online service providing course reviews and ratings based on student feedback at Korea U
Roughly 460K+ reviews by 45K+ members are available today
*President*                                                                            Jan. 2011 - P
- Led our team and managed the service. Maintained the service infrastructure.
*Co-Founder and Junior developer*                                                      Mar. 2010 - J
- Designed and developed a part of the service.


**REFERENCES**    Available upon request.


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