

Hyeonmin Lee

CV

PERSONAL INFORMATION **Email:** hmlee@mmlab.snu.ac.kr
Address: Network Convergence and Security Lab., 5F, Building 301, 1, Gwankak-ro, Gwanak-gu, Seoul, Republic of Korea
Homepage: <https://hyeonmin-lee.github.io/>

OBJECTIVE I'm a Ph.D. student in the Department of Computer Science and Engineering at Seoul National University. (*Advisor: Prof. Taekyoung "Ted" Kwon*)
My research interests focus on network security and network measurement: Are we using the network correctly and safely (especially, about security protocols)? How can we make the network (more) safely?

EDUCATION **Mar. 2016 - Feb. 2022**
M.S./Ph.D. Integrated Course in Dept. of Computer Science and Engineering, Seoul National University, Seoul, Republic of Korea
(Advised by Prof. Taekyoung "Ted" Kwon)
Mar. 2011 - Feb. 2016
B.S. in Dept. of Computer Science and Engineering, Seoul National University, Seoul, Republic of Korea
Fall 2014
Visiting Student at Dept. of Information Technology, Uppsala University, Uppsala, Sweden (1 term)

PUBLICATIONS ☐ **Conference**

Under the Hood of DANE Mismanagement in SMTP (*to appear*)
Hyeonmin Lee, Md. Ishtiaq Ashiq, Moritz Müller, Roland van Rijswijk-Deij, Taekyoung "Ted" Kwon, Taejoong Chung
In Proceedings of the USENIX Security Symposium (**USENIX Security**), Boston, United States, August 2022

A Longitudinal and Comprehensive Study of the DANE Ecosystem in Email
Hyeonmin Lee, Aniketh Gireesh, Roland van Rijswijk-Deij, Taekyoung "Ted" Kwon, Taejoong Chung
In Proceedings of the USENIX Security Symposium (**USENIX Security**), Boston, United States, August 2020

Development of Cellular Core Network Enabling Network Function Virtualization
Hyeonmin Lee, Junghwan Song
The 28th Joint Conference on Communication and Information (**JCCI**), Yeosu, Korea, May 2018

☐ **Journal**

TwinPeaks: An Approach for Certificateless Public Key Distribution for the Internet and Internet of Things
Eunsang Cho, Jeongnyeo Kim, Minkyung Park, **Hyeonmin Lee**, Chorom Hamm,

Soobin Park, Sungmin Sohn, Minhyeok Kang, Ted “Taekyoung” Kwon
Elsevier Computer Networks (SCI-E)

RESEARCH PROJECTS

Research on Traceability for Data Stability on Cloud-edge Lifecycle

Apr. 2020 - Present

Supported Institute for Information and Communication Technology Promotion (IITP)

Researcher / Programmer

Abnormal Detection and Forensic Techniques using IoT Network Traffic Analysis

Mar. 2021 - Nov. 2021

Korea Institute of Information Security & Cryptology (KIISC)

Project Manager (Lab.) / Researcher / Programmer

Versatile Network System Architecture for Multi-dimensional Diversity

Apr. 2016 - Dec. 2020

Supported Institute for Information and Communication Technology Promotion (IITP)

Project Manager (Lab.) / System Designer / Programmer

Research on GPU Acceleration for Fully Homomorphic Encryption

Feb. 2020 - Nov. 2020

Korea Institute of Information Security & Cryptology (KIISC)

Programmer

Developing High-performance Programming Environments and Computing Systems

Sep. 2019 - Apr. 2020

Supported by National Research Foundation of Korea (NRF)

Programmer

Research on Distributed Web Structure and Counterplan

Aug. 2019 - Nov. 2019

Supported by Korea Internet and Security Agency (KISA)

Researcher

Research on Trust and Security Scheme for Interconnection of Heterogeneous Networks

Sep. 2018 - Nov. 2018

Supported Electronics and Telecommunications Research Institute (ETRI)

Researcher

Research and Development of Open 5G Reference Model

Aug. 2016 - Feb. 2019

Supported by Giga KOREA Foundation

System Designer / Programmer

Content Delivery Framework Using Spatial and Temporal Dynamics in Mobile Networks

Mar. 2016 - May. 2016

Supported by National Research Foundation of Korea (NRF)

Programmer

Development of Network Security Acceleration for Next-generation Low-power SoC

Jul. 2015 - Dec. 2015
Supported by Samsung Electronics
Programmer

PATENTS

Network System and Method for Performing Message Security Thereof
Registration No. 1022656110000
Republic of Korea, Jun. 10, 2021

Communication Method Based on Integrated Flat ID and System
Registration No. 1020231150000
Republic of Korea, Sep. 11, 2019

EXPERIENCE

Internship May. 2019 - Aug. 2019
The Center for Cybersecurity, Rochester Institute of Technology
Rochester, USA
– Topic: Measuring and analyzing ecosystem of DANE protocol in Email

Teaching Assistance Spring 2016
Engineering Frontiers and Leadership 2 (Class)
Dept. of Computer Science and Engineering, Seoul National University

PROGRAMMING SKILLS

C/C++, Python, Java, Go