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
Hompage: 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

2016 - Present
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)

2011 - 2016
B.S. in Dept. of Computer Science and Engineering, Seoul National University, Seoul, Republic of Korea

2014 - 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	**Abnormal Detection and Forensic Techniques using IoT Network Traffic Analysis**

Abnormal Detection and Forensic Techniques using IoT Network Traffic Analysis
Mar. 2021 - Present
Korea Institute of Information Security & Cryptology (KIISC)
Project Manager (Lab.) / Researcher / Programmer

Research on Traceability for Data Stability on Cloud-edge Lifecycle
Apr. 2020 - Present
Supported Institute for Information and Communication Technology Promotion (IITP)
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   C/C++, Python, Java, Go
SKILLS