## Dongkwan Kim

Postdoctoral Fellow, SSLab School of Cybersecurity and Privacy Georgia Institute of Technology

## **HIGHLIGHTS**

Cybersecurity researcher and engineer with 10+ years of experience in vulnerability discovery and large-scale system analysis across IoT/embedded devices, cellular networks, and cyber-physical systems. Currently focusing on the full-chain security of AI-integrated systems.

- DARPA AIxCC Finalist: Fully automated vulnerability discovery and exploit generation with LLM.
- Samsung Security Center: Successfully secured 30+ products and services across diverse domains, and contributed to executive-level reports and organization-wide presentations (200+ people).
- Research & IP: Published 27 papers (9 top-tiered & 1,100+ cites), filed 7 patents, and completed 17 funding projects, while leading a subgroup, software analysis team, (~8 people) in the SysSec lab.
- Community Contribution: Delivered 21 invited talks to diverse academic and industry audiences.
- CTF Leadership: Reached DEF CON CTF finals 5 times and won multiple CTFs (~\$115K). Organized Samsung CTF, while leading the KAIST graduate hacking team, *KaisHack*, (~20 people).

## WORK EXPERIENCE

## Georgia Tech, Postdoctoral Fellow, Atlanta, GA

Feb. 2025 - Present

Email: 0xdkay@gmail.com

Homepage: https://0xdkay.me

As a finalist of DARPA AIxCC, designed and implemented LLM-powered exploit generation and fuzzing agents, significantly improving team productivity and analysis throughput through robust automation and tooling.

Manager: Prof. Taesoo Kim

Samsung Security Center, Samsung SDS, Senior Engineer, South Korea Aug. 2022 – Dec. 2024 Drove Red Team efforts to proactively identify and mitigate security threats across all Samsung affiliates' products and services, including AI-integrated systems, IoT/embedded devices, Android applications, and kernel-level mitigations. In addition to traditional privilege escalation vulnerabilities, I analyzed processes from new perspectives, such as abuse scenarios and analyzing 1-day vulnerabilities, with a focus on patch gaps and software development lifecycle (SDL) issues. Additionally, I expanded the traditional Red Team perspective to address AI safety issues and implemented an automated AI safety checker leveraging safety guardrail frameworks.

#### KAIST, Postdoctoral Researcher, South Korea

Mar. 2022 - Jul. 2022

Conducted advanced research on smartphone baseband authentication bypass, acoustic and EMI signal injection attacks against drone sensors, and recovery techniques for spoofed signals.

Manager: Prof. Yongdae Kim

## Pinion Industries, Research Intern, South Korea

Dec. 2013 - Feb. 2014

At this automotive software and security startup, I analyzed and exploited in-vehicle components (network systems, AVN, telematics, smart keys, ECUs), achieving remote code execution on AVN systems and investigating smart key cloning for potential theft and eavesdropping scenarios.

## KAIST CERT, Student Senior, South Korea

Sep. 2010 – Aug. 2012

Investigated and analyzed security incidents, including identifying and attributing an attack that led to the apprehension of the perpetrator by law enforcement.

## **EDUCATION**

## Korea Advanced Institute of Science and Technology (KAIST), South Korea

Ph.D. in School of Electrical Engineering

Mar. 2016 – Feb. 2022

Thesis Title: Improving Large-Scale Vulnerability Analysis of IoT Devices with Heuristics and Binary

Code Similarity

Advisor: Prof. Yongdae Kim

M.S. in School of Electrical Engineering

Mar. 2014 – Feb. 2016

Thesis Title: Dissecting VoLTE: Exploiting Free Data Channels and Security Problems

Advisor: Prof. Yongdae Kim

B.S. in School of Computing

Feb. 2010 - Feb. 2014

## EURECOM, France

Visiting Scholar in Software and System Security

Jun. 2014 – Jul. 2014

Learned embedded device analysis techniques, particularly for debugging interfaces

Advisor: Prof. Aurélien Francillon

## HONORS & AWARDS

## Hacking Contests (i.e., Capture-the-flag, CTF)

Finalist, DEFCON 27 CTF (Team KaisHack GoN) Aug. 2019

Finalist, DEFCON 26 CTF (Team KaisHack+PLUS+GoN) Aug. 2018

1st place (\$20,000), HDCON CTF (Team maxlen) Nov. 2017

1st place (\$30,000), Whitehat Contest (Team Old GoatskiN) Nov. 2017 3rd place (\$5,000), Codegate CTF (Team Old GoatskiN) Apr. 2017

Finalist, DEFCON 24 CTF (Team KaisHack GoN) Aug. 2016

1st place (\$20,000), Whitehat Contest (Team SysSec) Nov. 2014

Finalist, DEFCON 22 CTF (Team KAIST GoN) Aug. 2014

Silver prize (\$2,000), HDCON CTF (Team GoN) Dec. 2013

1st place (\$20,000), Whitehat Contest (Team KAIST GoN) Oct. 2013

Finalist, DEFCON 20 CTF (Team KAIST GoN) Jul. 2012

Silver prize (\$2,000), HDCON CTF (Team KAIST GoN) Jul. 2012

3rd place (\$5,000), Codegate CTF 2012 (Team KAIST GoN) Apr. 2012

1st place (\$10,000), ISEC CTF (Team GoN) Sep. 2011

1st place (\$1,000), PADOCON CTF (Team GoN) Jan. 2011

## Academic Awards

Best Paper Award, CISC-W Nov. 2020

Title: Standard-based User Identifier Mapping Attack Prevention Method for LTE Network

Best Presentation Award, A3 Security Workshop Feb. 2016

Title: Breaking and Fixing VoLTE: Exploiting Hidden Data Channels and Mis-implementations

Best Paper Award, WISA Aug. 2015

Title: BurnFit: Analyzing and Exploiting Wearable Devices

## Reported Security Vulnerabilities

CVE-2015-6614, Android telephony privilege escalation, Google

Oct. 2015

### Government-Issued Certificates

Engineer Information Security (i.e., 정보보안기사), South Korea Jun. 2016

Engineer Information Processing (i.e., 정보처리기사), South Korea May 2013

#### **Scholarships**

National Scholarship (Science and Engineering), Korea Student Aid Foundation

Feb. 2010 - Feb. 2020

## **PATENTS**

## **International Registrations**

US 10111120 Oct. 2018

Method and Apparatus for Checking Problem in Mobile Communication Network

#### Domestic Registrations, South Korea

KR 10-2514809 Mar. 2023

VIDEO IDENTIFICATION METHOD IN LTE NETWORKS AND THE SYSTEM THEREOF

KR 10-2418212 Jul. 2022

ARCHITECTURE-INDEPENDENT SIMILARITY MEASURING METHOD FOR PROGRAM FUNCTION

KR 10-2415494 Jun. 2022

Emulation based security analysis method for embedded devices

KR 10-2333866 Nov. 2021

Method and Apparatus for Checking Problem in Mobile Communication Network

KR 10-1972825 Apr. 2019

Method and apparatus for automatically analyzing vulnerable point of embedded appliance by using hybrid analysis technology, and computer program for executing the method

KR 10-1868836 Jun. 2018

A method to attack commercial drones using the resonance effect of gyroscopes by sound waves

## **Applications**

KR 10-2022-0132964 Oct. 2022

ANTI-DRONE SYSTEM THROUGH COMMUNICATION DISTORTION BETWEEN SENSOR AND CONTROL UNIT AND ITS OPERATION METHOD

KR 10-2021-0168382 Nov. 2021

Method and System for Automatically Analyzing Bugs in Cellular Baseband Software using Comparative Analysis based on Cellular Specifications

KR 10-2021-0136352 Oct. 2021

METHOD FOR PREVENTING MAPPING OF USER IDENTIFIERS IN MOBILE COMMUNICATION SYSTEM AND THE SYSTEM THEREOF

KR 10-2021-0040795 Mar. 2021

ANALYSIS SYSTEM FOR DETECTION OF SIP IN Volte AND THE METHOD THEREOF

KR 10-2020-0177062 Dec. 2020

Analysis method for detection of SIP implementation vulnerability in VoLTE

KR 10-2020-0133926 Oct. 2020

Method to prevent mapping of user identifiers in mobile communication system

KR 10-2020-0133925 Oct. 2020

APPARATUS AND METHOD FOR VIDEO TITLE IDENTIFICATION OF MOBILE COMMUNICATION NETWORK USING ENCRYPTED TRAFFIC MONITORING

KR 10-2019-0005131 Jan. 2019

Large-scale honeypot system IoT botnet analysis

KR 10-2018-0036403 Mar. 2018

Dynamic analysis method for malicious embedded firmware detection

KR 10-2018-0036055 Mar. 2018

Emulation based security analysis method for embedded devices

KR 10-2018-0037291 Mar. 2018

Binary-Level Virtual Function Call Protection Method by Saving Type Information

KR 10-2018-0034616 Mar. 2018

ARCHITECTURE-INDEPENDENT SIMILARITY MEASURING METHOD FOR PROGRAM FUNCTION

## PUBLICATIONS (INTERNATIONAL)

(\*: co-first authors)

1. BaseComp: A Comparative Analysis for Integrity Protection in Cellular Baseband Software

Eunsoo Kim\*, Min Woo Baek\*, CheolJun Park, **Dongkwan Kim**, Yongdae Kim, and Insu Yun

Proceedings of the 32nd USENIX Security Symposium (Security'23)

Acceptance rate: 29.22% (422 of 1,444)

Aug. 2023

2. Un-Rocking Drones: Foundations of Acoustic Injection Attacks and Recovery Thereof Jinseob Jung, Dongkwan Kim, Joonha Jang, Juhwan Noh, Changhun Song, and Yongdae Kim

Proceedings of the 2023 Annual Network and Distributed System Security Symposium (NDSS'23)

Acceptance rate: 16.18% (94 of 581)

Mar. 2023

3. Paralyzing Drones via EMI Signal Injection on Sensory Communication Channels

Junha Jang, Man<br/>Gi Cho, Jaehoon Kim,  $\bf Dongkwan~Kim,$  and Yongdae Kim

Proceedings of the 2023 Annual Network and Distributed System Security Symposium (NDSS'23)

Acceptance rate: 16.18% (94 of 581) Mar. 2023

4. Watching the Watchers: Practical Video Identification Attack in LTE Networks

Sangwook Bae, Mincheol Son, **Dongkwan Kim**, CheolJun Park, Jiho Lee, Sooel Son, and Yongdae Kim

Proceedings of the 31st USENIX Security Symposium (Security'22)

Acceptance rate: 18.10% (256 of 1,414)

Aug. 2022

5. Revisiting Binary Code Similarity Analysis using Interpretable Feature Engineering and Lessons Learned

Dongkwan Kim, Eunsoo Kim, Sang Kil Cha, Sooel Son, and Yongdae Kim

IEEE Transactions on Software Engineering (TSE'22)

Jul. 2022

6. Improving Large-Scale Vulnerability Analysis of IoT Devices with Heuristics and Binary Code Similarity

Dongkwan Kim

Ph.D. Thesis, KAIST

Daejeon, South Korea, Feb. 2022

7. Enabling the Large-Scale Emulation of Internet of Things Firmware With Heuristic Workarounds

Dongkwan Kim, Eunsoo Kim, Mingeun Kim, Yeongjin Jang, and Yongdae Kim

IEEE Security & Privacy

May 2021

8. BaseSpec: Comparative Analysis of Baseband Software and Cellular Specifications for L3 Protocols

Dongkwan Kim\*, Eunsoo Kim\*, CheolJun Park, Insu Yun, and Yongdae Kim

Proceedings of the 2021 Annual Network and Distributed System Security Symposium (NDSS'21)

Acceptance rate: 15.18% (87 of 573) Virtual, Feb. 2021

## 9. FirmAE: Towards Large-Scale Emulation of IoT Firmware for Dynamic Analysis

 $\label{eq:mingeun} \text{Mingeun Kim, } \underline{\textbf{Dongkwan Kim}}, \text{Eunsoo Kim, Suryeon Kim, Yeongjin Jang, and Yongdae Kim}$ 

Proceedings of the 2020 Annual Computer Security Applications Conference (ACSAC'20)

Acceptance rate: 23.18% (70 of 302) Virtual, Dec. 2020

## 10. Who Spent My EOS? On the (In)Security of Resource Management of EOS.IO

Sangsup Lee, Daejun Kim, Dongkwan Kim, Sooel Son, and Yongdae Kim

Proceedings of the 13th USENIX Workshop on Offensive Technologies  $\,$ 

(WOOT'19)

### 11. Peeking over the Cellular Walled Gardens - A Method for Closed Network Diagnosis

Byeongdo Hong, Shinjo Park, Hongil Kim, <u>Dongkwan Kim</u>, Hyunwook Hong, Hyunwoo Choi, Jean-Pierre Seifert, Sung-Ju Lee, and Yongdae Kim

IEEE Transactions on Mobile Computing (TMC'18)

Feb. 2018

Santa Clara, CA, Aug. 2019

## 12. When Cellular Networks Met IPv6: Security Problems of Middleboxes in IPv6 Cellular Networks

Hyunwook Hong, Hyunwoo Choi, <u>Dongkwan Kim</u>, Hongil Kim, Byeongdo Hong, Jiseong Noh, and Yongdae Kim

Proceedings of the 2nd IEEE European Symposium on Security and Privacy (EuroS&P'17)

Acceptance rate: 19.58% (38 of 194)

Paris, France, Apr. 2017

## 13. Pay As You Want: Bypassing Charging System in Operational Cellular Networks

Hyunwook Hong, Hongil Kim, Byeongdo Hong,  $\underline{\mathbf{Dongkwan\ Kim}}$ , Hyunwoo Choi, Eunkyu Lee, and Yongdae Kim

Proceedings of the 17th International Workshop on Information Security Applications

(WISA'16) Jeju, South Korea, Aug. 2016

## 14. Dissecting VoLTE: Exploiting Free Data Channels and Security Problems Dongkwan Kim

M.S. Thesis, KAIST

Daejeon, South Korea, Feb. 2016

## 15. Breaking and Fixing VoLTE: Exploiting Hidden Data Channels and Mis-implementations <u>Dongkwan Kim\*</u>, Hongil Kim\*, Minhee Kwon, Hyungseok Han, Yeongjin Jang, Dongsu Han, Taesoo Kim,

and Tongdae Kim

Proceedings of the 22nd ACM Conference on Computer and Communications Security (CCS'15)

Acceptance rate: 19.81% (128 of 646)

Denver, CO, Oct. 2015

### 16. BurnFit: Analyzing and Exploiting Wearable Devices

Dongkwan Kim, Suwan Park, Kibum Choi, and Yongdae Kim

Proceedings of the 16th International Workshop on Information Security Applications (WISA'15)

Best Paper Award

Jeju, South Korea, Aug. 2015

#### 17. Rocking Drones with Intentional Sound Noise on Gyroscopic Sensors

Yunmok Son, Hocheol Shin, <u>Dongkwan Kim</u>, Youngseok Park, Juhwan Noh, Kibum Choi, Jungwoo Choi, and Yongdae Kim

Proceedings of the 24th USENIX Security Symposium (Security'15)

Acceptance rate: 15.73% (67 of 426)

Austin, TX, Aug. 2015

#### 18. Analyzing Security of Korean USIM-based PKI Certificate Service

Shinjo Park, Suwan Park, Insu Yun, **Dongkwan Kim**, and Yongdae Kim Proceedings of the 15th International Workshop on Information Security Applications

(WISA'14) Jeju, South Korea, Aug. 2014

## 19. High-speed Automatic Segmentation of Intravascular Stent Struts in Optical Coherence Tomography Images

Myounghee Han,  $\mathbf{Dongkwan}$   $\mathbf{Kim}$ , Wang-Yuhl Oh, and Sukyoung Ryu

Proceedings of SPIE Biomedical Optics, Photonics West 2013 (BiOS'13) San Francisco, CA, Feb. 2013

## PUBLICATIONS (DOMESTIC, SOUTH KOREA)

## 1. Video Service Identification Attack in LTE by Monitoring Encrypted Traffic

Mincheol Son, Sangwook Bae, <u>Dongkwan Kim</u>, Jiho Lee, CheolJun Park, BeomSeok Oh, Sooel Son, and Yongdae Kim

Proceedings of Symposium of the Korean Institute of Communications and Information Sciences (KCIS'21)

Virtual, Jun. 2021

## 2. Standard-based User Identifier Mapping Attack Prevention Method for LTE Network

CheolJun Park, Sangwook Bae, Jiho Lee, Mincheol Son, **Dongkwan Kim**, Sooel Son, and Yongdae Kim Conference on Information Security and Cryptography Winter (CISC-W'20)

Best Paper Award South Korea, Nov. 2020

## 3. VoLTEFuzz: Framework for Comprehensive Analysis of SIP in VoLTE

Seokbin Yun, Sangwook Bae, Mincheol Son, **Dongkwan Kim**, Jiho Lee, CheolJun Park, Yeongbin Hwang, and Yongdae Kim

Conference on Information Security and Cryptography Winter (CISC-W'20) South Korea, Nov. 2020

### 4. Firm-Pot: Large-scale Firmware Honey-Pot for Malware Analysis

Minguen Kim, Eunsoo Kim, Dongkwan Kim, and Yongdae Kim

Conference on Information Security and Cryptography Winter (CISC-W'18) South Korea, Dec. 2018

#### 5. TVT: Typed Virtual Table for Mitigating VTable Hijacking

Jeongoh Kyea, Eunsoo Kim, Dongkwan Kim, and Yongdae Kim

Conference on Information Security and Cryptography Winter (CISC-W'17) South Korea, Dec. 2017

#### 6. Design and Implementation of GPS Spoofer Software

Juhwan Noh, Dongkwan Kim, and Yongdae Kim

Conference on Information Security and Cryptography Summer (CISC-S'15) South Korea, Jun. 2015

#### 7. Security Analysis of USIM-based certificate service in Korea

Shinjo Park, Suwan Park, Insu Yun, Dongkwan Kim, and Yongdae Kim

Conference on Information Security and Cryptography Summer (CISC-S'14) South Korea, Jun. 2014

## 8. Security Analysis of Femtocells in Korea

Eunsoo Kim, Dongkwan Kim, Youjin Lee, Shinjo Park, and Yongdae Kim

Conference on Information Security and Cryptography Summer (CISC-S'14) South Korea, Jun. 2014

## INVITED TALKS

## AI Security Primer: Red Team Perspectives on Navigating New Threats and Safeguarding AI Frontier

Special Lecture for Hyundai Motors Group Security Center Seoul, South Korea, Jan. 2025
3rd Workshop of IT Platform Security Research Group by Korea Institute of Information Security & Cryptology (KIISC)
Seoul, South Korea, Nov. 2024

Special Lecture for SungSungshin Women's University
Special Lecture for SK Telecom Security Team
Seoul, South Korea, Jul. 2024
SIS 2024: MERGE conference by S2W
Seoul, South Korea, Jul. 2024
.HACK Conference by Theori
Seoul, South Korea, May 2024

## Scaling up Vulnerability Analysis of IoT Devices with Heuristics and Binary Code Similarity

Technology Exchange Meeting between Samsung Mobile Security Team and Hyundai Motor Company Vehicle
Cyber Security Team Seoul, South Korea, Jul. 2024
Special Lecture for Kyung Hee University Yongin, South Korea, Aug. 2024
Colloquium at School of Cybersecurity, Korea University Seoul, South Korea, Oct. 2023

## Peeking over Industry's Patch Gap: Case Study of Samsung SmartTV's Web Browser KAIST-Samsung SDS Tech Seminar Daejeon, South Korea, Mar. 2023

# BaseSpec: Comparative Analysis of Baseband Software and Cellular Specifications for L3 Protocols

Annual Network and Distributed System Security Symposium

Virtual, Feb. 2021

KAIST-CISPA Workshop

Seoul, South Korea, Aug. 2019

## Breaking and Fixing VoLTE: Exploiting Hidden Data Channels and Mis-implementations A.k.a. Dissecting VoLTE: Exploiting Free Data Channels and Security Problems

| GSMA RCS/VoLTE Security Regulatory workshop                  | Toronto, Canada, Sep. 2016      |  |
|--|---------------------------------|--|
| A3 Foresight Program Annual Workshop                         | Okinawa, Japan, Feb. 2016       |  |
| Chaos Communication Congress (CCC) Conference (32C3)         | Hamburg, Germany, Dec. 2015     |  |
| National Security Research Institute                         | Daejeon, South Korea, Nov. 2015 |  |
| Power of Community (PoC) Conference                          | Seoul, South Korea, Nov. 2015   |  |
| ACM Conference on Computer and Communications Security (CCS) | Denver, CO, Oct. 2015           |  |
| Seminar at the Georgia Institute of Technology               | Atlanta, GA, Oct. 2015          |  |

## BurnFit: Analyzing and Exploiting Wearable Devices

16th WISA Jeju, South Korea, Aug. 2015

## International CTF Challenge Solving

NetSec-KR Seoul, South Korea, Apr. 2013

## PROFESSIONAL ACTIVITIES

## Secondary Reviewer (Security)

IEEE Symposium on Security and Privacy (Oakland)2021USENIX Security Symposium (Security)2019–2021Network and Distributed System Security Symposium (NDSS)2017–2018, 2020–2021ACM Conference on Computer and Communications Security (CCS)2017, 2019–2021IEEE European Symposium on Security and Privacy (EuroS&P)2016, 2018, 2020

| ACM ASIA Conference on Computer and Communications Security (ASIACCS) The WEB Conference (WWW) International Symposium on Research in Attacks, Intrusions and Defenses (RAID) IEEE Symposium on Privacy-Aware Computing (PAC) | 2016–2017, 2019–2020<br>2018, 2020<br>2017<br>2017 |
|---|--|
| Secondary Reviewer (System)  ACM Symposium on Operating Systems Principles (SOSP)  Symposium on Operating Systems Design and Implementation (OSDI)  | 2019<br>2016                                       |
| External Security Consultant  |  |
| KAIST Computer Emergency Response Team  | Sep. 2010 – Feb. 2022                              |
| PARTICIPATED PROJECTS   |  |
| (*: participated as a project leader)   |  |
| Industrial Projects   |  |
| An Industry-academia Task with Samsung Electronics Device Solutions Business Samsung Electronics  | Jun. 2020 – Aug. 2020                              |
| *Organizing 2018 Samsung Capture-the-flag (SCTF) Samsung Electronics  | Apr. 2018 – Oct. 2018                              |
| *Organizing 2017 Samsung Capture-the-flag (SCTF) Samsung Electronics  | Dec. 2016 – Dec. 2017                              |
| A Study on the Security Vulnerability Analysis and Response Method of LTE Networks  | Aug. 2016 – Jul. 2017                              |
| SK Telecom  | _  |
| A Security Vulnerability Analysis of Smartcar Core Modules<br>Hyundai NGV   | Jul. 2016 – Jun. 2017                              |
| A Study on the Security Analysis and Response Method of LTE Networks<br>SK Telecom  | Aug. 2015 – Apr. 2016                              |
| A Security Analysis of Samsung SmartTV 2014<br>Samsung Electronics  | Feb. 2014 – Dec. 2015                              |
| International Projects  |  |
| *Cyber Physical Analysis of System Software Survivability by Stimulating Sensors on Drones  Air Force Office of Scientific Research (AFOSR), Air Force Research   | Jun. 2020 – Feb. 2022                              |
| Laboratory (AFRL)   |  |
| Governmental Projects   |  |
| *A Study on the Android-based Security Analysis Technology<br>National Security Research (NSR)  | May 2020 – Dec. 2020                               |
| A Study on the Security of Random Number Generator and Embedded Devices<br>Institute for Information & Communications Technology Planning &<br>Evaluation (IITP)  | Jul. 2017 – Jun. 2019                              |
| $^*\mathrm{A}$ Study on the Firmware Emulation Technology for Linux-based Routers $\mathrm{NSR}$  | May 2017 – Oct. 2017                               |
| A Development of Automated Reverse Engineering and Vulnerability Detection<br>Base Technology through Binary Code Analysis  | Apr. 2016 – Dec. 2018                              |
| IITP *A CAPTCHA Design based on Human Perception Characteristics  | Apr. 2016 – Dec. 2016                              |

KAIST

\*A Study on the Vulnerability Analysis Method of Domestic/International

Smartcars Apr. 2015 – Nov. 2015

NSR

A Study on the Analysis of Technology and Security Threats in LTE Femtocell Sep. 2013 – Jan. 2014

Korea Internet & Security Agency (KISA)

A Study on the Analysis and Response Method of Vulnerabilities in Network

Devices Mar. 2013 – Dec. 2013

NSR

A Study on the Vulnerability Analysis of Network Devices Apr. 2011 – Oct. 2011

NSR

## OTHER ACTIVITIES

| Teaching Assistant, Introduction to Electronics Design Lab. (EE305), KAIST     | Fall 2019             |
|--|-----------------------|
| Teaching Assistant, Discrete Methods for Electrical Engineering (EE213), KAIST | Spring 2017           |
| Teaching Assistant, Network Programming (EE324), KAIST                         | Fall 2016             |
| Teaching Assistant, Cryptography Engineering (EE817/IS893), KAIST              | Spring 2016           |
| Teaching Assistant, Security 101: Think Like an Adversary (EE515/IS523), KAIST | Fall 2015             |
| Student Representative of School of Computing, KAIST                           | Feb. 2011 – Dec. 2013 |
| Head Instructor, Information Security 101 for Freshmen (HSS062), KAIST         | Sep. 2011 – Feb. 2013 |
| Teaching Assistant, Information Security 101 for Freshmen (HSS062), KAIST      | Sep. 2010 – Aug. 2011 |

## LIST OF REFERENCES

## Dr. Yongdae Kim

Director, Cyber Security Research Center (CSRC), KAIST

Professor, School of Electrical Engineering and Graduate School of Information Security, KAIST

Email: yongdaek@kaist.ac.kr

Homepage: https://syssec.kaist.ac.kr/~yongdaek/

#### Dr. Taesoo Kim

Professor, School of Cybersecurity and Privacy (SCP) and Computer Science (SCS), Georgia Tech

Email: taesoo@gatech.edu

Homepage: https://taesoo.kim/

## Dr. Sang Kil Cha

Director, Cyber Security Research Center (CSRC), KAIST

Associate Professor, School of Computing and Graduate School of Information Security, KAIST

Email: sangkilc@kaist.ac.kr

Homepage: https://softsec.kaist.ac.kr/~sangkilc/

#### Dr. Sooel Son

Associate Professor, School of Computing and Graduate School of Information Security, KAIST

Email: sl.son@kaist.ac.kr

Homepage: https://sites.google.com/site/ssonkaist/

### Dr. Yeongjin Jang

Principal Software Engineer, Samsung Research America

Email: y.jang1@samsung.com

Homepage: https://www.unexploitable.systems/

## Dr. Insu Yun

Associate Professor, School of Electrical Engineering, KAIST

Email: insuyun@kaist.ac.kr

Homepage: https://insuyun.github.io/