

# Yoonkyo Jung

Assistant Professor · Ph.D. Applicant

Cheongju-si, Chungcheongbuk-do, Republic of Korea

✉ ykjung.rokafa@gmail.com | 🏠 yoonkyo.info | 📧 yoonkyo | 🌐 yoonkyo

## Education

### Seoul National University (SNU)

M.S. in Computer Science and Engineering

- Network Convergence & Security Laboratory, Advisor: Ted “Taekyoung” Kwon
- Thesis: Consistency Analysis between Privacy Policy and Mobile Application [pdf]

Seoul, South Korea

Mar. 2019 - Feb. 2021

### Republic of Korea Air Force Academy (ROKAFA)

B.S. in System Engineering

Cheongju, South Korea

Mar. 2013 - Feb. 2017

## Professional Experience

### Department of Computer Science, ROKAFA

Department Chair

Assistant Professor

Full-time Lecturer

Cheongju, South Korea

Jan. 2023 - present

Apr. 2022 - present

Feb. 2021 - Mar. 2022

### Aerospace Force Weapon Systems Laboratory, ROKAFA

Deputy Director

Researcher

Cheongju, South Korea

Jan. 2023 - present

Feb. 2021 - present

### Aerospace Research Institute, ROKAFA

Project Management Officer

Cheongju, South Korea

Dec. 2021 - Dec. 2022

### Department of Computer Science and Engineering, SNU

Research Assistant

Seoul, South Korea

Feb. 2019 - Jan. 2021

### Air Defense Missile Command, ROKAF

Radar Maintenance Officer

Osan, South Korea

Apr. 2018 - Jan. 2019

### Education and Training Command, ROKAF

Recruit Training Officer

Jinju, South Korea

Mar. 2017 - Mar. 2018

## Publications

### A Survey on Model Aggregation Approaches in Federated Learning

Yoonkyo Jung, Jinyi Yoon, IEEE Access (To be submitted)

TBD

### Analysis of the Performance Improvement Evaluation Index of Air Force Advanced Trainers

Byungho Jung, Seong In Hwang, Yoonkyo Jung, Namkyu Lim, Journal of the Korean Society of SCM, Vol.23, No.2 [pdf]

2023

### Reliability Analysis of Privacy Policies Using Android Static Analysis

Yoonkyo Jung, KIPS Transactions on Computer and Communication Systems, Vol.12, No.1 [pdf]

2023

### Design of Surveillance Device Control System Using Audio Beamforming

Jaesung Sim, Yoonkyo Jung, Journal of Military Science Research, Vol.73, No.2 [pdf]

2022

### Development and Performance Evaluation of Chatbot System for Office Automation

Yoonkyo Jung, Asia-Pacific Journal of Convergent Research Interchange, Vol.8, No.10 [pdf]

2022

### Development of Multi-copter Propeller Distortion Measurement Device Using Three-side Image Analysis

Songhyeon Kim, Jaesung Sim, Yoonkyo Jung, KIISE Korea Computer Congress [pdf] [poster]

2022

### Reliability Analysis of Privacy Policies Based on Android Static Analysis

Yoonkyo Jung, Annual Spring Conference of KIPS [pdf] [slide]

2022

### A Study on the Development and Performance Improvement of Chatbot for Office Automation

Junsoo Park, Youngjun Kim, Yoonkyo Jung, KIICE Spring Conference [pdf] [slide]

2022

### Android Remote Unlocking Service using Synthetic Password: A Hardware Security-preserving Approach

Sungmin Lee, Yoonkyo Jung, Jaehyun Lee, Byoungyoung Lee, Ted “Taekyoung” Kwon, IEEE SecDev [pdf] [slide]

2021

## Teaching

### Republic of Korea Air Force Academy

Assistant Professor

- 2023 Fall: Data Communication, Hacking and Defense, Convergence Capstone Design (In progress)
- 2023 Spring: Network Programming, Embedded System, Convergence Capstone Design (Course Evaluations: 4.95/5.0)
- 2022 Fall: Hacking and Defense (Course Evaluations: 5.0/5.0)
- 2022 Spring: Embedded System (Course Evaluations: 5.0/5.0)

Cheongju, South Korea

Apr. 2022 - present

### Republic of Korea Air Force Academy

Full-time Lecturer

- 2021 Fall: Software Programming, Data Structure, Hacking and Defense (Course Evaluations: 4.87/5.0)
- 2021 Spring: Software Programming, Embedded System (Course Evaluations: 4.97/5.0)

Cheongju, South Korea

Feb. 2021 - Mar. 2022

### Seoul National University

Teaching Assistant

- 2020 Fall: Internet Security and Privacy

Seoul, South Korea

Sep. 2020 - Dec. 2020

## Research Projects

### Concept of Optimal Requirements for Air Force Future Basic Trainers

Korea Aerospace Industries (KAI)

ROKAFA

Oct. 2023 - Jun. 2024

### Performance Improvement of Air Force Advanced Trainers (T-50 Series)

Agency for Defense Development (ADD)

ROKAFA

Apr. 2023 - Jul. 2023

### Development and Implementation of Air Force Live-Virtual-Constructive (LVC) Architecture

Korea Aerospace Industries (KAI)

ROKAFA

Dec. 2021 - Dec. 2022

### Versatile Network System Architecture for Multi-dimensional Diversity

Institute for Information & Communication Technology Planning (IITP)

SNU

Jan. 2020 - Dec. 2020

### Smartcampus: Research on Localization Scheme based on Multiple Sensors

Samsung Electronics

SNU

May. 2019 - Apr. 2020

### Research on Security Scheme for Interconnection of Heterogeneous Networks

Electronics and Telecommunications Research Institute (ETRI)

SNU

Jun. 2019 - Nov. 2019

## Honors & Awards

- 2024 **Full Scholarship for Graduate Studies (PhD, 5 years)**, R.O.K Ministry of National Defense
- 2023 **Commendation of Lieutenant General**, Distinguished Service in Graduation Ceremony, ROKAFA
- 2022 **Best Paper Award**, Korea Computer Congress, KIISE
- 2021 **Excellence Award**, Creative and Innovation Idea Hackathon, ROKAF
- 2019 **Full Scholarship for Graduate Studies (MS, 2 years)**, R.O.K Ministry of National Defense
- 2016 **Best Undergraduate Paper Award**, Student Paper Contest, KOPOMS

## Extracurricular Activity

- 2022 **Founder & Instructor**, ROKAFA Programming Club
- 2022 **Reviewer**, Asia-Pacific Journal of Convergent Research Interchange
- 2020 **Reviewer**, International Conference on ICT Convergence
- 2019 **Researcher**, Samsung Electronics SNU R&D Center
- 2019 **Program Chair**, eLearning Competition, Global IT Challenge
- 2019 **Technical Advisor**, Global IT Challenge, RI Korea
- 2016 **Battalion Cadet Commander**, Cadet Leadership, ROKAFA
- 2016 **Squadron Cadet Commander**, Cadet Leadership, ROKAFA

## Skills

<b>Languages</b>	Python, C, C++, JavaScript, SQL, JAVA, Kotlin, GO
<b>Technologies</b>	Docker, Git, $\text{\LaTeX}$ , MySQL, NoSQL(MongoDB), HTML/CSS
<b>Platforms</b>	Linux(Ubuntu), Windows, Nginx, AWS, Oracle Cloud, Azure
<b>Frameworks</b>	TensorFlow/Keras, Pytorch