Yoonkyo Jung

Assistant Professor · Ph.D. Applicant

Cheongju-si, Chungcheongbuk-do, Republic of Korea

✉ ykjung.rokafa@gmail.com | 🏠 yoonkyo.info | ⬡ yoonkyo | in yoonkyo

Education

Seoul National University (SNU) *Seoul, South Korea*
M.S. in Computer Science and Engineering *Mar. 2019 - Feb. 2021*

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

Republic of Korea Air Force Academy (ROKAFA) *Cheongju, South Korea*
B.S. in System Engineering *Mar. 2013 - Feb. 2017*

Professional Experience

Department of Computer Science, ROKAFA *Cheongju, South Korea*
Department Chair *Jan. 2023 - present*
Assistant Professor *Apr. 2022 - present*
Full-time Lecturer *Feb. 2021 - Mar. 2022*

Aerospace Force Weapon Systems Laboratory, ROKAFA *Cheongju, South Korea*
Deputy Director *Jan. 2023 - present*
Researcher *Feb. 2021 - present*

Aerospace Research Institute, ROKAFA *Cheongju, South Korea*
Project Management Officer *Dec. 2021 - Dec. 2022*

Department of Computer Science and Engineering, SNU *Seoul, South Korea*
Research Assistant *Feb. 2019 - Jan. 2021*

Air Defense Missile Command, ROKAF *Osan, South Korea*
Radar Maintenance Officer *Apr. 2018 - Jan. 2019*

Education and Training Command, ROKAF *Jinju, South Korea*
Recruit Training Officer *Mar. 2017 - Mar. 2018*

Publications

A Survey on Model Aggregation Approaches in Federated Learning *TBD*
Yoonkyo Jung, Jinyi Yoon, IEEE Access (To be submitted)

Analysis of the Performance Improvement Evaluation Index of Air Force Advanced Trainers *2023*
Byungho Jung, Seong In Hwang, **Yoonkyo Jung**, Namkyu Lim, Journal of the Korean Society of SCM, Vol.23, No.2

Reliability Analysis of Privacy Policies Using Android Static Analysis *2023*
Yoonkyo Jung, KIPS Transactions on Computer and Communication Systems, Vol.12, No.1

Design of Surveillance Device Control System Using Audio Beamforming *2022*
Jaesung Sim, **Yoonkyo Jung**, Journal of Military Science Research, Vol.73, No.2

Development and Performance Evaluation of Chatbot System for Office Automation *2022*
Yoonkyo Jung, Asia-Pacific Journal of Convergent Research Interchange, Vol.8, No.10

Development of Multi-copter Propeller Distortion Measurement Device Using Three-side Image Analysis *2022*
Songhyeon Kim, Jaesung Sim, **Yoonkyo Jung**, KIISE Korea Computer Congress

Reliability Analysis of Privacy Policies Based on Android Static Analysis *2022*
Yoonkyo Jung, Annual Spring Conference of KIPS

A Study on the Development and Performance Improvement of Chatbot for Office Automation *2022*
Junsoo Park, Youngjun Kim, **Yoonkyo Jung**, KIICE Spring Conference

Android Remote Unlocking Service using Synthetic Password: A Hardware Security-preserving Approach *2021*
Sungmin Lee, **Yoonkyo Jung**, Jaehyun Lee, Byoungyoung Lee, Ted "Taekyoung" Kwon, IEEE SecDev

Teaching

Republic of Korea Air Force Academy   *Cheongju, South Korea*
Assistant Professor   *Apr. 2022 - present*
- 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))

Republic of Korea Air Force Academy   *Cheongju, South Korea*
Full-time Lecturer   *Feb. 2021 - Mar. 2022*
- 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)

Seoul National University   *Seoul, South Korea*
Teaching Assistant   *Sep. 2020 - Dec. 2020*
- 2020 Fall: Internet Security and Privacy

Research Projects

Concept of Optimal Requirements for Air Force Future Basic Trainers   *ROKAFA*
Korea Aerospace Industries (KAI)   *Oct. 2023 - Jun. 2024*

Performance Improvement of Air Force Advanced Trainers (T-50 Series)   *ROKAFA*
Agency for Defense Development (ADD)   *Apr. 2023 - Jul. 2023*

Development and Implementation of Air Force Live-Virtual-Constructive (LVC) Architecture *ROKAFA*
Korea Aerospace Industries (KAI)   *Dec. 2021 - Dec. 2022*

Versatile Network System Architecture for Multi-dimensional Diversity   *SNU*
Institute for Information & Communication Technology Planning (IITP)   *Jan. 2020 - Dec. 2020*

Smartcampus: Research on Localization Scheme based on Multiple Sensors   *SNU*
Samsung Electronics   *May. 2019 - Apr. 2020*

Research on Security Scheme for Interconnection of Heterogeneous Networks   *SNU*
Electronics and Telecommunications Research Institute (ETRI)   *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

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