## Minki Lee

Integrated M.S. + Ph.D. Program Student Department of Computer Science and Engineering, Pohang University of Science and Technology (POSTECH), South Korea {leeminki} at dgist.ac.kr | GitHub: @leeminki02



## **INTERESTS**

- · Cyber-Physical Systems (CPS) Security
- Distributed & Embedded System Engineering
- · Secure Design and Development
- CPS System Engineering & Architecture

#### **EDUCATION**

#### Integrated M.S. & Ph.D. Program

Computer Security Lab, POSTECH CSE

Advisor: Seulbae Kim

- Research in Cyber-Physical Systems' security
- Swarm system resilience and defense

## **Bachelor of Engineering in Computer Science Major**

DGIST, School of Undergraduate Studies

• WAM/GPA: 3.60/4.30, percent scale: 93.0%

- Bachelor's Thesis-substitute Report: Security for Reliable Swarm Cyber-Physical System
- Courseworks: Computer Security, Computer Network, Computer Architecture, Operating Systems, Computer Algorithms, Control Engineering, Real-time Embedded Systems

## **Summer Session Visiting Student**

UC Berkeley, GPA 4.0 / 4.0

• Visited by FGLP (Freshman Global Leadership Program), supported by DGIST

## **Completion of Technical Venture Leader Course**

DGIST TVA (Technical Venture-leader Academy)

23 February 2023

June 2023 - August 2023

Berkeley, California, CA

Daegu, South Korea

Pohang, South Korea

Daegu, South Korea

(Expected) 14 August 2025

Expected to enroll, in September 2025

#### SKILLS

Languages: Korean (Native), English (Proficient)

Computer Languages: C/C++, Python, JavaScript(+HTML+CSS), PHP, Dart

Tools and Testbeds: PX4 & ROS2 & gazebo, Crazyflie 2.X, Matlab-based simulations

#### AWARDS AND HONORS

#### **Tech Award (Team CompSec)** | *HackTheDrone 2024*

Korea Drone Innovation Association President's Award

- 7th place in Finals, October 30th, 2024.
- 2nd place in Qualifier, September 7th 8th, 2024.
- Packet and Network analysis, Software-Defined Radio

## **Full Scholarship** | *DGIST*

• Full National Scholarship

## Grand Prize (DGIST President Award) Winner | DGIST Startup Contest

- As leader of **2nd place winning** pre-startup group
- Personalized learning Software-as-a-Service (SaaS) provider startup

30 October 2024

8 October 2022

March 2021 - August 2025

#### **EXPERIENCES**

#### Research

## **Visiting Undergraduate Intern**

CompSec Lab at POSTECH

- Advisor: Seulbae Kim
- Computer Security & CPS Security
- Research in Drone Swarm System Testbed

## **Undergraduate Student Researcher**

Cyber-Physical Security (CPSec) Lab, DGIST

- Advisor: Hongjun Choi
- Research about Secure and Robust Operation of Future Mobility (Drone Swarm)
- UGRP (Undergraduate Group Research Project) for Resilient Swarm Drones
- Presented Demo Poster at VehicleSec 2024, San Diego, United States

#### **Research Internship**

2024 Winter Internship Program, Department of EECS, DGIST

• CSI Lab, Advisor: Kyung-Joon Park

• Research about Secure and Robust Future Mobility System

December 2023 - January 2024

Daegu, South Korea

June 2024 - August 2025

November 2022 – June 2024

Pohang, South Korea

Daegu, South Korea

#### Work

# **CUOP (Company - University Cooperation Program) Intern**Ouester

December 2024 – February 2025 Daegu, South Korea

- Intern Developer
- Computer Vision AI model (object detection and tracking) for sensor fusion
- Experienced {YOLOv8, BiSeNet, SORT, DeepSORT, SAMURAI, SLAM}
- Product Security Analysis (Reverse Engineering)

# **CUOP (Company - University Cooperation Program) Intern**BostonAIMS

June 2022 – August 2022

Seoul, South Korea

- Intern Developer
- AI model Server Deployment/Development
- Experienced Huggingface, Dart/Flutter, Docker along with Firebase Server

#### **Teaching**

## **Undergraduate TA (Teaching Assistant)**

School of Undergraduate Studies, DGIST

- Subject: CSE401, Introduction to Database
- Computer Science and Engineering Major

August 2024 - December 2024

Daegu, South Korea

#### **PUBLICATIONS**

## Demo: One Shot All Kill: Building Optimal Attack on Swarm Drones

Symposium on Vehicle Security and Privacy (VehicleSec 2024), San Diego, United States **Minki Lee**, Gangmin Kim, Jonghyun Kang, Hyunwoo Kim, Jangwon Lee, Hongjun Choi https://dx.doi.org/10.14722/vehiclesec.2024.25008