

Minki Lee

leeminki@dgist.ac.kr

Undergraduate Research Student

Computer Science and Engineering Major

DGIST (Daegu Gyeongbuk Institute of Science & Technology), Daegu, South Korea



INTERESTS

- Cyber-Physical Systems (CPS) Security
- Distributed & Embedded System Engineering
- Robust and Resilient Future Mobilities & Infrastructure
- CPS System Engineering & Architecture

EDUCATION

Integrated Master's and Ph.D. Program

(Expected — starting from) September 2025

Computer Security Lab, POSTECH CSE

Pohang, South Korea

- Advisor: Seulbae Kim
- Research in Cyber-Physical Systems' security
- Swarm system resilience and defense

Bachelor of Engineering in Computer Science Major

(Expected) 14 August 2025

DGIST, School of Undergraduate Studies

Daegu, South Korea

- WAM/GPA: 3.64/4.30, percent scale: 93.4%
- 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

Completion of Technical Venture Leader Course

23 February 2023

DGIST TVA (Technical Venture-leader Academy)

Daegu, South Korea

SKILLS

Languages: Korean (Native), English (Proficient)

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

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

Areas: Cyber-Physical Systems (CPS), Embedded Systems, Software-Defined Radio (SDR)

AWARDS AND HONORS

Tech Award (Team CompSec) | *HackTheDrone 2024*

30 October 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*

March 2021 – August 2025

- Full National Scholarship

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

8 October 2022

- Leader of **2nd place winner** pre-startup group
- Personalized learning Software-as-a-Service (SaaS) provider startup

Finalist | *2018 Samsung Junior Software Cup*

November 2018

- Project about optimizing AED transportation in emergency situation

EXPERIENCES

Visiting Undergraduate Intern

CompSec Lab at POSTECH

June 2024 - Present

Pohang, South Korea

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

CUOP (Company - University Cooperation Program) Intern

Quester

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)

Undergraduate TA (Teaching Assistant)

School of Undergraduate Studies, DGIST

August 2024 - December 2024

Daegu, South Korea

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

Undergraduate Student Researcher

Cyber-Physical Security (CPSec) Lab, DGIST

November 2022 – June 2024

Daegu, South Korea

- 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

December 2023 – January 2024

Daegu, South Korea

- CSI Lab, Advisor: Kyung-Joon Park
- Research about Secure and Robust Future Mobility System

Summer Session Visiting Student

UC Berkeley, GPA 4.0 / 4.0

June 2023 - August 2023

Berkeley, California, CA

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

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

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>