

# Hwang In Tak

Email: sp301415@gmail.com

Website: sp301415.com

## RESEARCH INTERESTS

---

Modern Cryptography, including but not limited to: Lattice-Based Cryptography, Fully Homomorphic Encryption, and Zero Knowledge Proofs

## EDUCATION

---

**Seoul National University** 2023 — Present  
Integrated M.S./Ph.D. in Computer Science & Engineering  
Advisor: Prof. Yongsoo Song

**UC Berkeley** 2018 Summer  
Summer Sessions, in part of DGIST Freshmen Global Leadership Program (FGLP)

**DGIST** 2018 — 2022  
B.S. in School of Undergraduate Studies *Summa Cum Laude*

## PUBLICATIONS

---

**Optimizing HE via Level-aware Key-switching**  
*Intak Hwang, Jinyeong Seo, Yongsoo Song*  
WAHC 2023

## PRESENTATIONS

---

**Accelerating Homomorphic Encryption via Level-aware Key-switching** 2023.04  
2023 KMS Spring Meeting

## HONORS AND SCHOLARSHIPS

---

<b>CTF Security Competitions</b>	2020 — 2022
SSTF Hacker's Playground 2022	5th place
WhiteHat Contest 2021	3rd place
DEF CON CTF 2021	Finalist
PlaidCTF 2021	5th place
Real World CTF 2020/2021 (Media Coverage)	1st place
Midnight Sun CTF 2020 Finals	7th place
TokyoWesterns CTF 2020 Finals	3rd place
DEF CON CTF 2020	Finalist

## SKILLS

---

### Languages

Korean (native), English (fluent)

### Programming Languages

Advanced: Go, Python (SageMath)

Intermediate: C, C++, C#, Rust

## OTHER ACTIVITIES

---

### Member of CTF Team CodeRed

2020 — Present

I participate in CTF competitions from time to time, mostly solving crypto challenges.

### Developer & Writer of Team Invertible

2020 — Present

I am actively working on INVERTIBLE, a sokoban puzzle game. We recently ran our first closed beta test. We are planning to release the game on Steam in 2023.

## OTHER INTERESTS

---

I love watching films. I wrote and directed three short films in college, and I still write screenplays as a hobby!