

# CHUNG HWAN HAN

Software Engineer

## EDUCATION

### Korea University

BSc IN INFORMATION SECURITY

- Studied Software Engineering, Security, Network and Cloud Computing
- 4.07 GPA

Seoul, Korea

03/2019 - 08/2023

### Technical University of Munich

STUDENT EXCHANGE

- Studied Cloud Computing, Distributed System and Peer-to-Peer Network

Munich, Germany

04/2022 - 09/2022

## WORK EXPERIENCE

### fal (Features and Lables, Inc.)

SOFTWARE ENGINEER

San Francisco, USA (Remote)

01/2025 -

- Pretrained a 22B parameter video generation model from scratch.
- 2 person team, no initial data, no initial parameters.
- Took charge of the data side. Data collection, preprocessing, filtering, etc.
- Built a data management tool for the team and released it as a open source project: <https://github.com/fal-ai/lavender-data>

### Corca, Inc.

DEV PART LEAD (10-15 PERSON TEAM)

Seoul, Korea

12/2022 - 12/2024

- Took charge of the development team.
- Built a retail-media solution, a personalized recommendation system
- Architecture design and implementation, DevOps, team management and development process improvement.

MLOPS ENGINEER (5-10 PERSON TEAM)

07/2021 - 12/2022

- Built a bidding machine for real-time online advertising.
- Data collection and processing, ML model deployment and continuous training.
- Successfully handled ~300k requests per minute.
- AWS, Pulumi, Kafka, Nest.js, Go, gRPC, Redis

### Pangea, Inc.

BACKEND DEVELOPER (3-6 PERSON TEAM)

Seoul, Korea

10/2021 - 12/2021

- Built a NFT marketplace based on K-Pop idol contents 'Moment of Artist'.
- Served over 15K users at the peak time.
- AWS ECS, MongoDB, CloudFlare, Next.js, Nest.js

### Mars Green

BLOCKCHAIN DEVELOPER (2 PERSON TEAM)

Seoul, Korea

07/2021 - 09/2021

- Built Smart Contracts and the web backend for the etherium based NFT gallery 'Mars Green' (<https://marsgreen.co>).
- AWS ECS, Solidity, express.js, ethers.js

### CodeWings, Inc.

WEB FULL STACK DEVELOPER (2 PERSON TEAM)

Seoul, Korea

12/2020 - 07/2021

- Built and maintained the algorithm education platform web service.
- Course and student management, online exams and assignments for lectures and students.
- Provided remote code executions for exams and assignments.
- AWS EC2, ECS, Docker, Django, Next.js, redux, gRPC, socket.io

## EXTRA-CURRICULAR ACTIVITIES

### DevKor

EXECUTIVE MEMBER

Seoul, Korea

02/2021 - 02/2022

- Lectured about web backend developing at software development society of Korea University, DevKor, for students of the university in various of major.
- Held an Hackathon for the students, sponsored by 6 companies including AWS and Naver D2.
- Developed and managed the platform for the event. (<https://devk.or.kr>)

### CyKor

EXECUTIVE MEMBER

Seoul, Korea

09/2019 - 12/2020

- Participated many hacking competitions such as DEFCON, CODEGATE, zer0pts as a member of the hacking team, CyKor.
- Lectured about web security and hacking techniques at cyber security society of Korea University, CyKor, for students of Department of Cyber Security.
- Held a CTF as a member of the team CyKor. More than a hundred of competitor participated.
- Developed a platform for the competition. Served and managed tens of challenges made by me and my teammates with docker and three on-premise linux machines

### Contract Research Project

PENETRATION TESTER

Seoul, Korea

12/2020 - 07/2021

- As a contract research project which has assigned to department of Cyber Security of Korea University.
- Found several vulnerabilities and exploits including Stored XSS, Information disclosure, open redirect, etc at one of Korea's largest game companies' web services.

## PROJECTS

### soulcert

SBT(NFT) BASED CERTIFICATION SYSTEM.

*Github soulcert/soulcert*

06/2023

- A blockchain-based certification system using non-transferable NFTs (SBT, Soul-Bound Token).
- Used Solidity, Hardhat, NestJS, and Next.js.
- Deployed contracts on the Polygon test network and servers on AWS ECS.

### nestjs-slack-listener

NEST.JS MODULE FOR BUILDING SLACK APPLICATIONS.

*Github hanchchch/nestjs-slack-listener*

03/2022

- Wrote a blog post about this project ([link](#))
- Developed decorators that help build Slack applications with Nest.js, in typical Nest.js-style
- Published on npm

### gimi

CLOUD-BASED MALICIOUS URL DETECTION SYSTEM.

*Github hanchchch/gimi*

09/2022

- Inspect the URL using containers and detect whether it is malicious or not
- Provision a new container for each URL to inspect it in isolation, just like FaaS
- Built a simple FaaS platform, to operate heterogenous functions in cloud environment
- Used NestJS for controllers and micro-services, Docker Go client for container management, protobuf for communications

### csma-ca

SIMULATION FOR CSMA/CA WITH BEB AND RTS/CTS

*Github hanchchch/csma-ca*

12/2021

- Implemented a simulation environment for CSMA/CA protocol in Python.
- DI pattern is used to make the settings such as RTS, frame rate, and detect range configurable.
- The simulation is visualized in the terminal and the result is saved as a csv file.
- This project was a final assignment for the Wireless Mobile Communication Networks course.

## HONORS

2020 **8th Place**, DEFCON#28 CTF

*Online*

2020 **6th Place**, CODEGATE2020 CTF

*Online*