

CHUNG HWAN HAN

Backend Engineer



Seoul, Korea



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Chung Hwan Han



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EDUCATION

Korea University

BSC IN INFORMATION SECURITY

- Software Engineering, Security, Network and Cloud Computing
- 4.02 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

Corca, Inc.

DEV PART LEAD

- Leading the development team.

Seoul, Korea

12/2022 -

MLOPS ENGINEER

- Took charge of MLOps related works.
- Built pipelines for data processing, continuous integration, deployment and training.
- Designed and developed high-performance language-neutral ML Model server using gRPC and protobuf.
- Developed real-time data stream with Kafka streams, processing ~300k messages per minute.
- Implemented event driven architecture where Nest.js servers and Go clients are participating, using Redis.
- Managed infrastructures with Pulumi.
- Successfully handled ~300k requests per minute.

07/2021 - 12/2022

Pangea, Inc.

BACKEND DEVELOPER

- Developed and deployed the LINE Blockchain based NFT marketplace based on K-Pop idol contents. (<https://momentofartist.com>)
- RESTful API with Nest.js.
- Web frontend with React, Next.js, redux-saga.
- Managed devOps related works to serve stably for over 15K users.
- AWS ECS, AWS ElastiCache, MongoDB Atlas, CloudFlare, etc.

Seoul, Korea

10/2021 - 12/2021

Mars Green

BLOCKCHAIN DEVELOPER

- Developed Smart Contract and web backend for the ethereum based NFT gallery 'Mars Green' (<https://marsgreen.co>).
- Wrote Smart Contract with Solidity and web backend with express.js and ethers.js.
- Connected the Smart Contract and the web server to make continuous tracking and managing through the web site possible.
- Deployed and maintained the service with AWS ECS Fargate.
- Built the CI/CD pipeline with AWS CodePipeline.

Seoul, Korea

07/2021 - 09/2021

CodeWings, Inc.

WEB FULL STACK DEVELOPER

- Developed, deployed and maintained the algorithm education platform web service.
- Designed a well-organized REST API with Django RESTful Framework.
- Connected micro-service to each other with gRPC and socket.io.
- Improved frontend of the site to be more interactive and intuitive with Next.js and redux.
- Deployed server using AWS ECS Fargate, EC2, and CodePipeline.

Seoul, Korea

12/2020 - 07/2021



ABOUT ME

MLOps Engineer, Software developer, and Blockchain developer.

LANGUAGES

English • Fluent (C1 Certificate)

Korean • Mother tongue

STACKS

Python

- Django, Flask, Airflow, Pandas

Go

- Protobuf, gRPC, Gin

Typescript

- Nest.js, express.js, ethers.js

Java

- Spring Boot, Kafka-streams

React

- Next.js, Redux, Recoil, react-query

Solidity

- Hardhat, Alchemy

Container

- docker, docker-compose, kubernetes

IaC

- Pulumi-AWS

AWS

- EC2, ECS, Lambda, CloudWatch, etc.

GCP

- VM, BigQuery

Kafka

- Confluent, MSK

CONTRIBUTIONS

pulumi/pulumi-hugo

- #1058

blockcoders/nestjs-ethers

- #135

EXTRA-CURRICULAR ACTIVITIES

DevKor

Seoul, Korea

EXECUTIVE MEMBER

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

Seoul, Korea

EXECUTIVE MEMBER

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

Seoul, Korea

PENETRATION TESTER

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

nestjs-slack-listener

Github

NEST.JS MODULE FOR BUILDING SLACK APPLICATIONS.

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

i-wanna-play-minecraft

Github

AUTOMATED MINECRAFT SERVER CLOUD PROVISIONING TOOL

10/2022

- For those who want to serve Minecraft server but poor
- Provision a running Minecraft server instance in cloud instantly with only one command
- Pause, restart, or even destroy the instance with one command
- Specify amount of time to run the server to reduce the costs
- Used Pulumi and Go client of it

gimi

Github

CLOUD-BASED MALICIOUS URL DETECTION SYSTEM.

09/2022 - On going

- 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
- Used NestJS for controllers and micro-services, Docker Go client for container management, protobuf for communications

csma-ca

Github

SIMULATION FOR CSMA/CA WITH BEB AND RTS/CTS

12/2021 - 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 free.
- The simulation is visualized in the terminal and the result is saved as a csv file.
- You can run the simulation in parallel to get many simulation results quickly.
- I conducted experiments and analysis and wrote a report in the README of this repository.
- 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