

YUNBIN CHANG

Undergraduate Researcher

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📍 Seoul, South Korea

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SUMMARY

I've developed a passion for computer science from an early age, exploring various aspects before my formal studies at Hansung University. My focus is now firmly established in ML. These are my primary research areas as I prepare for the next stage of my academic journey.

RESEARCH INTEREST

Smart Manufacturing
Computer Vision
Data Augmentation
Generative Adversarial Network

EDUCATION

Mar 2019 -
Aug 2024

Hansung University, Seoul, South Korea
B.S. in Computer Science and Engineering

School

Honors: GPA: 4.27/4.5 (Major 4.43)

- Admitted through the Software Talent Pathway (SW 특기자 전형)
- National Science & Technology Scholarship (국가우수장학금 이공계)
- Full Scholarship for Junior and Senior Years
- Highest Academic Excellence Scholarship (최우수한성인재 장학금)
- 70% Tuition Scholarship for Sophomore Year
- Academic Excellence Scholarship (우수한성역량장학금)
- 50% and 30% Tuition Scholarship for Freshman Year

EXPERIENCE

Feb 2024 -
present

Deepseers, Seoul Vision & Software Engineer

Company

- Transitioned to a startup founded within the lab, continuing the same projects and responsibilities.
- Developed advanced vision algorithms for semiconductor package inspection.
- Implemented communication protocols with handlers and managed hardware control, including cameras and lighting.
- Designed the comprehensive software architecture.

May 2023 -
Feb 2024

AML Lab. Hansung University, Seoul Undergraduate Researcher

Laboratory

- Advisor: Professor Keejun Han
- Researching a new memory efficient GAN framework for high-resolution image acquisition.
- Actively involved in a semiconductor package vision inspection project.

Jun 2022 -
Jun 2023

STAFAC INC., Seoul
Developer

Company

- Contributed 100% to the development of RESTful API and databases of drop shipping platform using node.js, express and nest.js.
- Designed, built, and operated the server architecture, ensuring smooth operation and high availability using set of AWS EC2, S3, LB, RDS, ElastiCache and Nginx.
- Contributed more than 30% to the front-end development based on the number of commits using Nuxt.

Dec 2020 -
Jun 2022

UNITED STATES FORCES KOREA, Camp Humphreys
KATUSA, J1 Data Management

Military

- Maintained the database of more than 60,000 soldiers and their dependents, ensuring its reliable operation.
- Conducted data management and analysis, including generating strength reports and tracking violations.
- Provided necessary data to support USFK decision-making through SQL queries.
- Provided direct support for communication between the ROK-US alliance, including translation services.

PUBLICATIONS AND PRESENTATIONS

- Domestic Journal

Dec 2023 **[1] Yunbin Chang, Wonyong Choi, Keejun Han*, "A Sub-Region Approach with Conditional GANs for Memory Efficiency Enhancement"**
Journal of the Microelectronics and Packaging Society
- (accepted)

- Domestic Conference

Nov 2023 **[1] Yunbin Chang, Wonyong Choi, Keejun Han*, "A Sub-Region Approach with Conditional GANs for Memory Efficiency Enhancement"**
2024 HCI KOREA
- oral presentation (accepted)
- best paper award

Jan 2024 **[2] Yunbin Chang, Wonyong Choi, Keejun Han*, "A Computationally Optimized Data Augmentation Framework Utilizing cDCGAN for High Resolution Package Images Acquisition"**
21st International Symposium on Microelectronics and Packaging (ISMP 2023)
- poster presentation (accepted)

RESEARCH PROJECTS

May 2023 -
present **Researcher, AML Lab. Hansung University**
Project title: "Development of AI based smart manufacturing process and equipment technology to strengthen the competitiveness of semiconductor materials parts and equipment"
(반도체 소자 생산을 위한 인공지능 기반 스마트 제조 공정 장비 및 관련 기술 개발)

AWARDS

Apr 2022 **Best Paper Award (Oral)**
HCI Korea 2024

The paper "A Sub-Region Approach with Conditional GANs for Memory Efficiency Enhancement" presented at the HCI Korea 2024 conference has been selected as a best paper.

Apr 2022 **Joint Service Commendation Medal**
Secretary of Defense, United States Of America

Awarded by General LaCamera on my Expiration Term of Service.
The Joint Service Commendation Medal (JSCM) is awarded in the name of the Secretary of Defense to members of the Armed Forces of the United States who distinguished themselves by meritorious achievement or service in a joint duty capacity.

This award is intended for senior service on a joint military staff and is senior in precedence to service-specific Commendation Medals.

Aug 2021

2021 국방 공공데이터 활용 경진대회, 서비스 개발 부문 최우수
국방부장관상, 국방부

- Developed the model API, web restful API and front-end pages.
- supported the development of a personalized recommendation model through a DL model using tf-idf and word2vec.

Developed a platform aimed at promoting systematic self-development for military members. With the help of artificial intelligence, our platform recommends personalized books and certifications, and provides information on pass rates for the certifications. Users can easily keep track of their self-development progress by writing personal development journals using Markdown syntax. The platform also includes a ranking system that encourages healthy competition among users by awarding points.

Aug 2020

제 2 회 오픈 인프라 개발 경진대회 (OIDC 2020)
최우수상, Mantech

- Developed all the features below including APIs and the model

Developed a platform that utilizes the Seoul Open API to periodically collect realtime data on the inventory of public rental bikes (Ddareungi). The platform predicts future inventory using an LSTM model, in order to improve the convenience of Ddareungi users.

Dec 2019

개방형 클라우드 플랫폼 서비스 개발 공모전 : 제 2 회 국회도서관 해커톤
특별상, 과학기술정보통신부, 국회도서관

- Developed all the features below including APIs and the model

Developed a location-based platform for sharing real-time information on missing pets, allowing users to check the current status of missing pets. It enables users to share the location where a missing pet was last seen or where a missing pet was found recently.

CERTIFICATIONS

Nov 2017

LINUX MASTER II
Korean Association for ICT Promotion

LANGUAGES

English - Intermediate (TOEIC 845) **Korean** - Native

ADDITIONAL REMARKS

I hereby certify that the above detailed statements are all true and correct.