

## RESEARCH INTERESTS

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Computer Vision, Computational Photography, Deep Learning, Robotics

## EDUCATION

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### Korea University

*B.S. Computer Science and Engineering*

Seoul, South Korea

03/2022 - 08/2023

- Overall GPA : 4.33 / 4.5 (98.1 / 100)
- Got an A+ on Artificial intelligence, Introduction to convex optimization, Theory of computation, Discrete Mathematics, Special lecture for computer science, Computer Architecture

### Korea University

*B.Eng. Software Technology and Enterprise Program*

Seoul, South Korea

03/2015 - 02/2022

- Major GPA : 4.15 / 4.5 (96.0 / 100)
- Military service, 09 2016 - 06 2018

### Korea University

*B.Eng. Chemical and Biological Engineering*

Seoul, South Korea

03/2015 - 02/2022

## WORK AND RESEARCH EXPERIENCE

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### Electronics & Telecommunications Research Institute (ETRI)

*Research Intern @Visual Intelligence Research Section*

Daejeon, South Korea

07-08/2021, 01-02/2022, 07-08/2022

- Participated in the DeepView Project, devise the new network called RDID-GAN to reconstruct de-identified image dataset using attention. Increased bbox and keypoint detection rate.
- Participated in the CAML Project, proposed the novel encoder to reconstruct 3D portrait images from 2D image dataset.

### Computer Vision Laboratory, Korea University

*Research Intern*

Seoul, South Korea

09/2020 - 06/2021

- **Depth estimation:** Implement monocular depth estimation model using U-net architecture combined with depth network and pose network
- **3D reconstruction:** Reconstruct 2D image to 3D image using a transformer and SMPL

## CONFERENCE & JOURNAL PUBLICATIONS

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### Conference publications

- Youngjoo Jo, **Wonseok Oh**, Jaegul Choo. 2023. Encoding 2D to 3D: EG3D Encoder for portrait image *IEEE Winter Conference on Applications of Computer Vision 2023 (WACV 2023)* (under review)
- **Wonseok Oh**, Kangmin Bae, Yuseok Bae. 2021. Visualization Comparison of GAN for Reconstructing De-identified Image Dataset using Attention. *Korea Software Congress 2021 (KSC 2021)* (domestic)

### Journal publications

- **Wonseok Oh**, Kangmin Bae, Yuseok Bae. 2021. RDID-GAN: Reconstructing a De-identified Image Dataset to Generate Effective Learning Data. *Journal of Korean Institute of Information Scientists and Engineers 2021 (JOK 2021)* (domestic)

## PATENTS

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- Kangmin Bae, **Wonseok Oh**, "Method and image processing system to generate training data" Us Patent, Korean Patent (2021) (Patent Application)
- **Wonseok Oh**, "Dual Tube Wheel" Korean Patent Registration No. 1020110004742, (2011)
- **Wonseok Oh**, "Mask that make used Hanji" Korean Patent Registration No. 1020100035593, (2010)

## AWARDS AND SCHOLARSHIPS

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### Semester High Honors

*Korea University* 2022

### Excellence Mentor award\_Personal Assistance service

*Korea University* 2022

### Nation Work Scholarships(Government)

*Korea University* 2022

### Special Scholarship for leaders

*Korea University* 2019, 2021, 2022

### Work-Study Scholarship

*Korea University* 2019

## SKILLS

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**Languages:** English, Korean

**Programming languages:** Python, C/C++, Matlab, Kotlin

**Documentation:** Markdown, L<sup>A</sup>T<sub>E</sub>X

**ML Tools:** Pytorch, Tensorflow, Keras

## EXTRACURRICULAR ACTIVITIES

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### Korea University Computer Club

Seoul, South Korea

*Leader*

*Aug/2019 – present*

- Make a club network and Make a website club website to operate the schedule of various sessions
- Open algorithm session for club members to develop the ability to implement data structures and coding ability

### Korea University Innovation Center for Engineering Education

Seoul, South Korea

*Regular Member*

*Sep/2020 – Feb/2022*

- Organize a program for teenagers who are interested in scientific experiments
- Explain and help teenagers with the scientific facts and methods of the experiments

### Korea University Language Exchange Division

Seoul, South Korea

*Leader*

*Mar/2019 – Fed/2020*

- Managed the various language clubs in Korea University merge and organized a language exchange program once a week
- Made the Korean reading class for foreign students who wants to understand Korean movies and K-pop

## REFERENCES

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### Seungryong Kim

*assistant professor*

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*Korea University*

### Seongbin Park

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*Korea University*

### Yongju Lee

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### Kimin Yun

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*ETRI*