Wonseok Oh

prbs5kong.github.io

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Research Interests

Computer Vision, Computational Photography, Machine learning, Robotics

Education

Korea University　　　　　　　　　　　　　　　　　　　　　　Seoul, South Korea

B.S. Computer Science and Engineering　　　　　　　　　　　　　　*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　　　　　　　　　　　　　　　　　　　　　　Seoul, South Korea

B.Eng. Software Technology and Enterprise Program　　　　　　　　　*03/2015 - 02/2022*

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

Korea University　　　　　　　　　　　　　　　　　　　　　　Seoul, South Korea

B.Eng. Chemical and Biological Engineering　　　　　　　　　　　　*03/2015 - 02/2022*

Work and Research Experience

Electronics & Telecommunications Research Institute (ETRI)　　Daejeon, South Korea

Research Intern @Visual Intelligence Research Section　　*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　　　　　　　　　Seoul, South Korea

Research Intern　　　　　　　　　　　　　　　　　　　　　　*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

Korea Army CBRN School　　　　　　　　　　　　　　　　　Jangseong, South Korea

Instructor　　　　　　　　　　　　　　　　　　　　　　　　*09/2016 - 06/2018*

- Train how to cope and train with chemical and biological warfare

- Establish educational contents for new equipment such as educational materials, educational videos, teaching materials, experimental manuals, etc

Conference & Journal Publications

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

- Kangmin Bae, **<u>Wonseok Oh</u>**, "Method and image processing system to generate training data" Us Patent, Korean Patent (2021) (Patent Appication)

- **<u>Wonseok Oh</u>**, "Dual Tube Wheel" Korean Patent Registration No. 1020110004742, (2011, granted)

- **<u>Wonseok Oh</u>**, "Mask that make used Hanji" Korean Patent Registration No. 1020100035593, (2010, granted)

Awards and Scholarships

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

Languages: English, Korean

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

Documentation: Markdown, LaTeX

ML Tools: Pytorch, Tensorflow, Keras

Extracurricular Activities

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

Seongbin Park Email : hyperspace@korea.ac.kr
professor *Korea University*
Seungryong Kim Email : seungryong_kim@korea.ac.kr
assistant professor *Korea University*
Yongju Lee Email : yongju@etri.re.kr
Principal Researcher *ETRI*
Kimin Yun Email : kimin.yun@etri.re.kr
Senior Researcher *ETRI*