

# Namyup Kim

PH.D. STUDENT @ COMPUTER VISION LAB.

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## Education

### Pohang University of Science and Technology (POSTECH)

INTEGRATED M.S · PH.D STUDENT IN COMPUTER SCIENCE AND ENGINEERING

- Advisor: Prof. Suha Kwak
- Cumulative GPA: 3.8 / 4.3

Pohang, South Korea

Mar. 2018 - Present

### Soongsil University

B.S. IN ELECTRONIC ENGINEERING

- Advisor: Prof. Dongsung Kim
- Cumulative GPA: 4.1 / 4.5

Seoul, South Korea

Mar. 2011 - Feb. 2018

## Experience

### Microsoft Research Asia (MSRA), Remote

RESEARCH INTERN

- Researched on domain generalization for semantic segmentation and referring image segmentation.
- Mentor: Cuiling Lan

Beijing, China

Dec. 2020 - Jun. 2021

### Computer Vision Lab, POSTECH

RESEARCH ASSISTANT

- Participate in research projects about weakly supervised semantic boundary detection and domain generalization.

Pohang, South Korea

Mar. 2018 - Present

### Image Processing Lab, Soongsil University

RESEARCH INTERN

- Developed software applications including automatic attendance, hidden camera detection and text contents/buttons rendering on a bird-eye view image

Seoul, South Korea

Mar. 2016 - Feb. 2018

### Software Maestro (funded by Korea Ministry of Knowledge and Economy)

SOFTWARE ENGINEER TRAINEE

- Trainee completion: Built a system of detecting and reporting hidden cameras which is composed of app, detecting hardware and an announcement webpage.

Seoul, South Korea

Jul. 2017 - Dec. 2017

### EF International Language Centres

LANGUAGE STUDY ABROAD

- Certificated of academic year abroad diploma.

Bristol, UK

Jan. 2015 - Nov. 2015

### 5<sup>th</sup> Corps Headquarters

MILITARY OBLIGATION

- Carried out the obligatory duty of national defense.

Pocheon, South Korea

Jan. 2013 - Oct. 2014

## Publication

### • Shatter and Gather: Learning Referring Image Segmentation with Text Supervision

2023

DONGWON KIM\*, NAMYUP KIM\*, CUILING LAN, AND SUHA KWAK (\*EQUAL CONTRIBUTION)

IEEE/CVF International Conference on Computer Vision (ICCV)

### • Improving Cross-Modal Retrieval with Set of Diverse Embeddings

2023

DONGWON KIM, NAMYUP KIM, AND SUHA KWAK

IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) (Highlight, 235/9155 = 2.5)

- **WEDGE: Web-Image Assisted Domain Generalization for Semantic Segmentation** 2023  
NAMYUP KIM, TAEYOUNG SON, JAEHYUN PAHK, CUILING LAN, WENJUN ZENG, AND SUHA KWAK  
IEEE International Conference on Robotics and Automation (ICRA)
- **ReSTR: Convolution-free Referring Image Segmentation Using Transformers** 2022  
NAMYUP KIM, DONGWON KIM, CUILING LAN, WENJUN ZENG, AND SUHA KWAK  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)
- **Style Neophile: Constantly Seeking Novel Styles for Domain Generalization** 2022  
JUWON KANG, SOHYUN LEE, NAMYUP KIM, AND SUHA KWAK  
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)
- **Learning to Detect Semantic Boundaries with Image-Level Class Labels** 2022  
NAMYUP KIM\*, SEHYUN HWANG\*, AND SUHA KWAK (\*EQUAL CONTRIBUTION)  
International Journal of Computer Vision (IJCV)
- **Urie: Universal image enhancement for visual recognition in the wild** 2020  
TAEYOUNG SON, JUWON KANG, NAMYUP KIM, SUNGHYUN CHO, AND SUHA KWAK  
European Conference on Computer Vision (ECCV)

## Patent

- **Input and Output System of Text According to Position on Image and the Method Thereof** 2018  
NAMYUP KIM\*, DONGWOO KIM, JIYOUNG YEON, HONGSUN YUN  
Korean Patent, KR1018284400000

## Honors & Awards

- |                  |  |                  |
|------------------|--|------------------|
| 2022             | <b>NAVER Ph.D. Fellowship Award</b> , NAVER  | Seoul, S. Korea  |
| 2022             | <b>POSTECHIAN Fellowship Award</b> , POSETECH  | Seoul, S. Korea  |
| 2022             | <b>Qualcomm Innovation Fellowship South Korea</b> , Qualcomm   | Seoul, S. Korea  |
| 2022             | <b>The 2<sup>nd</sup> and 3<sup>rd</sup> Prize, NAVER × POSTECH AI DAY</b> , NAVER                           | Pohang, S. Korea |
| 2020             | <b>The Honorable Mention, Samsung Humantech Thesis Prize</b> , Samsung Electronics                           | Suwon, S. Korea  |
| 2016             | <b>The Best Prize, The 14<sup>th</sup> Embedded Software Contest</b> , Ministry of trade industry and energy | Seoul, S. Korea  |
| 2016             | <b>The Bronze Prize, Engineering Design Competition</b> , Soongsil University                                | Seoul, S. Korea  |
| 2011, 2012, 2017 | <b>Academic Excellence Scholarship</b> , Soongsil University   | Seoul, S. Korea  |

## Reviewer

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (**CVPR**): 2023
- IEEE/CVF International Conference on Computer Vision (**ICCV**): 2023
- Conference on Neural Information Processing Systems (**NeurIPS**): 2023
- International Conference on Machine Learning (**ICML**): 2023
- IEEE/CVF Winter Conference on Applications of Computer Vision (**WACV**): 2024
- Asian Conference on Computer Vision (**ACCV**): 2022

## Invited Talk

- **Open Seminar: An Introduction of Referring Image Segmentation and its Recent Work** Pankyo, South Korea  
KAKAO BRAIN Jul. 2022

## Teaching Experience

- **Teaching Assistant in External Courses**  
SK Hynix, Machine Learning Training Course (Nov. 2019)
- **Teaching Assistant in POSTECH**  
CSED290, Introduction to Computer Science & Engineering (Spring 2018)  
CSED261, Discrete Mathematics for Computer Science (Spring 2022)