# **Eungyeup Kim**

yhy1254@gmail.com • (+82)10-3692-3809 • https://eungyeupkim.github.io

INTERESTS Robust ML under distribution shifts, Computer vision, Dataset bias, Self-supervised learning.

**EDUCATION** Carnegie Mellon University

Ph.D. in Computer Science Sep 2022 – Present

• Advisor: Prof. Matt Fredrikson

**Korea Advanced Institute of Science and Technology (KAIST)** 

M.S. in Artificial Intelligence Mar 2020 – Aug 2021

• Advisor: Prof. Jaegul Choo

**Hanyang University** 

B.S. in Electronic Engineering Mar 2013 – Aug 2019

#### PUBLICATIONS CONFERENCES

- [1] Jungsoo Lee\*, **Eungyeup Kim**\*, Juyoung Lee, Jihyeon Lee, and Jaegul Choo, "Learning Debiased Representation via Disentangled Feature Augmentation," in *Conference on Neural Information Processing Systems (NeurIPS)*, 2021, Oral Presentation (<1% acceptance rate). (\*: equal contribution) [paper] [code]
- [2] **Eungyeup Kim**\*, Jihyeon Lee\*, and Jaegul Choo, "BiaSwap: Removing Dataset Bias with Bias-Tailored Swapping Augmentation," in *IEEE International Conference on Computer Vision (ICCV)*, 2021. (\*: equal contribution) [paper]
- [3] **Eungyeup Kim**\*, Sanghyeon Lee\*, Jeonghoon Park\*, Somi Choi, Choonghyun Seo, and Jaegul Choo, "Deep Edge-Aware Interactive Colorization against Color Bleeding Effects," in *IEEE International Conference on Computer Vision (ICCV)*, 2021, Oral Presentation (3% acceptance rate). (\*: equal contribution) [paper] [project]
- [4] Junsoo Lee\*, **Eungyeup Kim**\*, Yunsung Lee, Dongjun Kim, Jaehyuk Chang, and Jaegul Choo, "Reference-Based Sketch Image Colorization using Augmented-Self Reference and Dense Semantic Correspondence," in *IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020. (\*: equal contribution) [paper] [project]
- [5] Wonwoong Cho\*, Kangyeol Kim\*, **Eungyeup Kim**, Hyunwoo Kim, and Jaegul Choo, "Unpaired Image Translation via Adaptive Convolution-based Normalization," in *arXiv preprint arXiv:* 1911.13271, 2019. (\*: equal contribution) [paper]

## RESEARCH EXPERIENCE

**AI Lab**, Kakao Enterprise Corp.

Research Scientist May 2021 – Present

- Conducted research on feature-level data augmentation for debiasing.
- Published a debiasing paper at NeurIPS 2021 (Oral presentation) [1].

# **Data and Visual Analytics Lab**, KAIST

Graduate Student Sep 2019 – Aug 2021

- Conducted research on data augmentation via generative models for debiasing.
- Published a debiasing paper at ICCV 2021 [2].

# AI Research, Naver Webtoon Corp.

Collaborative Researcher Sep 2019 – Nov 2020

- Conducted collaborative research on sketch colorization and edge-aware colorization.
- Published two colorization papers at CVPR 2020 and ICCV 2021 (Oral presentation) [3, 4].

### SCHOLARSHIPS Kwanjeong Scholarship, Kwanjeong Educational Foundation Sep 2022 – Aug 2027

KAIST Support Scholarship, KAIST

Academic Excellence Scholarship, Hanyang University

Mar 2020 – Aug 2021

Sep 2016 – Dec 2018

Freshman Scholarship, Hanyang University

Mar 2013

IN	VOL	VE	MENT	S
&	ACT	IVI	TIES	

Invited talk, SNU AIIS Retreat 2022

• Presented on "Learning debiased representation." [1]

Apr 2022

Invited talk, NeurIPS 2021 Social: ML in Korea

• Presented on "Learning debiased representation." [1]

Dec 2021

Invited talk, Hyundai Motor Group AI Research Seminar

• Presented on "Sketch colorization" [4] and "Unsupervised colorization."

Jun 2020, Oct 2020

Tutorial, Samsung DS AI Expert Program

• Presented on "Image-to-image translation."

Aug 2020

Tutorial, NVIDIA AI Conference

• Presented on "Image classification and object detection."

Aug 2018, Jul 2019

**LANGUAGES** 

Korean: Native language.

English: Fluent.

IBT TOEFL: 101 (Reading: 28, Listening: 26, Speaking: 23, Writing: 24)
GRE: Verbal (154, 63%), Quantitative (169, 94%), Writing (3.5, 37%)

**SKILLS** 

LATEX, Python, PyTorch, TensorFlow, MATLAB, C++

LEADERSHIP EXPERIENCE

ML/DL Paper Study, Data and Visual Analytics Lab, KAIST

Team Leader

Dec 2019 – Aug 2021

• Led paper study group of 10 graduate students in topics of both machine learning and deep learning.

Hanyang International Volunteer Association (HIVA), International Affairs, Hanyang University

*Leader* Jun 2016 – Dec 2018

• Organized mentoring program for international students for 4 consecutive semesters.

#### REFERENCES

#### **Matt Fredrikson**

Associate Professor

School of Computer Science, CMU

mfredrik@cmu.edu

## Jaegul Choo

**Associate Professor** 

Kim Jaechul Graduate School of Artificial Intelligence, KAIST

jchoo@kaist.ac.kr

# **Edward Choi**

**Assistant Professor** 

Kim Jaechul Graduate School of Artificial Intelligence, KAIST

edwardchoi@kaist.ac.kr

## Juyoung Lee

Senior Research Scientist

AI Lab, Kakao Enterprise

michael.jy@kakaoenterprise.com