

Sungho Park

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Summary

Research Interest How to solve fairness problem in computer vision and machine learning
Current Focus Fairness in Artificial Intelligence (FAI), Fairness in Computer Vision

Education

Yonsei University

PH.D IN COMPUTER SCIENCE

- Supervised by Prof. Hyeran Byun

B.S IN COMPUTER SCIENCE

- Bachelor of Engineering in Computer Science

Seoul, South Korea

Mar. 2018 - Present

Mar. 2013 - Feb. 2018

Publication

Mitigating Inter-subject Brain Signal Variability for EEG-based Driver Fatigue State

Classification

SUNHEE HWANG, **SUNGHO PARK**, DOHYUNG KIM, JEWOOK LEE, HYERAN BYUN

- IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP)

Jun. 2021

Learning Subject-independent Representation for EEG-based Drowsy Driving Detection

SUNHEE HWANG, PILHYEON LEE, **SUNGHO PARK**, HYERAN BYUN

- The 9th International Winter Conference on Brain-Computer Interface (BCI)
- Spotlight Presentation

Feb. 2021

Learning Disentangled Representation for Fair Facial Attribute Classification via Fairness-aware Information Alignment

SUNGHO PARK, SUNHEE HWANG, DOHYUNG KIM, HYERAN BYUN

- The 35th AAAI Conference on Artificial Intelligence (AAAI)

Feb. 2021

Fair-VQA: Fairness-aware Visual Question Answering through Sensitive Attribute Prediction

SUNGHO PARK, SUNHEE HWANG, JONGKWANG HONG, HYERAN BYUN

- IEEE Access. 2020, vol. 8, pp. 215091-215099 (IEEE Access)

Dec. 2020

Exploiting Transferable Knowledge for Fairness-aware Image Classification

SUNHEE HWANG*, **SUNGHO PARK***, PILHYEON LEE*, SEOGKYU JEON, DOHYUNG KIM, HYERAN BYUN

- The 15th Asian Conference on Computer Vision (ACCV)

Nov. 2020

Resampling Strategy for Mitigating Unfairness in Face Attribute Classification

DOHYUNG KIM, **SUNGHO PARK**, SUNHEE HWANG, MINSONG KI, SEOGKYU JEON, HYERAN BYUN

- 2020 International Conference on ICT Convergence (ICTC)

Oct. 2020

FairFaceGAN: Fairness-aware Facial Image-to-Image Translation

SUNHEE HWANG, **SUNGHO PARK**, DOHYUNG KIM, MIRAE DO, HYERAN BYUN

- The 31th British Machine Vision Conference (BMVC)

Sep. 2020

Selective residual learning for Visual Question Answering

JONGKWANG HONG, **SUNGHO PARK**, HYERAN BYUN

- Neurocomputing. 2020, Vol. 402. pp. 366-374. (Neurocomputing)

Aug. 2020

Honors & Awards

2020 **Best Paper Award**, The Joint Conference of Microsoft and Korean Artificial Intelligence Association

South Korea

2020 **Best Paper Award**, The Summer Conference of Korean Artificial Intelligence Association

South Korea

Presentation

Learning Disentangled Representation for Fair Facial Attribute Classification via Fairness-aware Information Alignment

- AAI talk, 2021

Resampling Strategy for Mitigating Unfairness in Face Attribute Classification

- ICTC talk, 2020

Patent

Apparatus and method for detecting subject-independent fatigue state based on brain signal of driver

HYERAN BYUN, SUNHEE HWANG, **SUNGHO PARK**, PILHYEON LEE, JEWOOK LEE, DOHYUNG KIM

Jan. 2021

- Korea patent (applied), No.10-2020-0002145

Visual Question Answering Apparatus Using Fair Classification Network and Method Thereof

HYERAN BYUN, **SUNGHO PARK**

Oct. 2020

- PCT patent (applied), No.PCT/KR2020/013783
- Korea patent (applied), No.10-2019-0140763

Image Translation Apparatus Using Learning Protected Attribute Representation and Method Thereof

HYERAN BYUN, SUNHEE HWANG, MIRAE DO, DOHYUNG KIM, **SUNGHO PARK**

Jul. 2020

- Korea patent (applied), No.10-2020-0093861

Visual Question Answering Apparatus Using Selective Residual Learning and Method Thereof

HYERAN BYUN, JONGKWANG HONG, **SUNGHO PARK**, SUNHEE HWANG

Jan. 2020

- Korea patent (applied), No.10-2020-0011823

Framework for Generating an Image Reconstructing Brain Activity of a Subject

HYERAN BYUN, KIBEOM HONG, SUNHEE HWANG, GUI-YOUNG SON, JEWOOK LEE, PILHYEON LEE, **SUNGHO PARK**, MINSONG KI

Jan. 2020

- Korea patent (registered), No.10-2089014