Nayeong Kim

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Cheongam-Ro 77, POSTECH, Pohang-Si, Republic of Korea (37673)

EDUCATION

POSTECH   Pohang, Republic of Korea
Ph.D. in Computer Science and Engineering (Unified master's and doctor's course)   *Sep. 2017 - Present*
- Supervised by Prof. Suha Kwak in the Computer Vision Lab.
- Research Interest: Algorithmic fairness and Debiasing

POSTECH   Pohang, Republic of Korea
B.S. in Computer Science and Engineering   *Mar. 2013 - Aug. 2017*

PUBLICATION

[1] **Nayeong Kim**, Sehyun Hwang, Sungsoo Ahn, Jaesik Park, Suha Kwak, "Learning Debiased Classifier with Biased Committee", Conference on Neural Information Processing Systems (**NeurIPS**), 2022.

[2] **Nayeong Kim**, Suha Kwak. "Robust Crowd Counting via Image Enhancement and Dynamic Feature Selection", British Machine Vision Conference (**BMVC**), 2021.

AWARDS

BK21 Best Paper Award from POSTECH CSE, "Learning Debiased Classifier with Biased Committee"   2023

REVIEWING SERVICES

International Conference on Machine Learning (ICML)   2022
Tiny Papers at International Conference on Learning Representations (ICLR)   2023
International Conference on Computer Vision (ICCV)   2023
Conference on Neural Information Processing Systems (NeurIPS)   2023

TALKS

"Learning Debiased Classifier with Biased Committee", Korean Artificial Intelligence Association Fall conference, NAVER and KAIA, Nov. 2022

RESEARCH PROJECTS

Electronics and Telecommunications Research Institute (ETRI)   May. 2020 – Present
- Adaptive AI for Robots. Developed neural networks for crowd recognition in single image.

POSCO group   Sep. 2018 – Sep. 2019
- Anomaly detection for information leakage according to external intrusion attack using deep neural networks

Samsung Electronics   Jan 2018 – Jul. 2018
- Developing abnormal signal detection algorithm for semiconductor process equipment using recurrent neural network

TEACHING EXPERIENCE

Teaching Assistant, DeepLearning, POSTECH	Mar. 2020 - Jun. 2020
Teaching Assistant, DeepLearning:NUGU-based AI Tech&Serv., POSTECH	Sep. 2018 - Dec. 2018
Teaching Assistant, Machine Learning Course, SK Hynix	Aug. 2018 - May. 2019
Teaching Assistant, Deep Learning Course, POSCO Group	May. 2018 - Jul. 2019
Teaching Assistant, Introduction to Machine Learning, POSTECH	Mar. 2018 - Jun. 2018
Teaching Assistant, Machine Learning Course, Samsung	Feb. 2018 - Mar. 2019
Teaching Assistant, AI Job Training Course, POSTECH Institute of AI	Dec. 2017 - Apr. 2019

Work Experience

Research Intern at Samsung Electronics	Jan. 2018
Research Intern at Exem	Mar 2017 - Sep. 2017

Paper reading seminar

Learning to Split for Automatic Bias Detection	Sep 30, 2022
Learning Fair Classifiers with Partially Annotated Group Labels (CVPR 2022)	Mar 25, 2022
EnD: Entangling and Disentangling deep representations for bias correction (CVPR 2021)	Aug 27, 2022
To Choose or to Fuse? Scale Selection for Crowd Counting (AAAI 2021)	Mar 29, 2021
From Open Set to Closed Set: Supervised Spatial Divide-and-Conquer for Object Counting (ICCV 2019)	Dec 18, 2021
Cross-Batch Memory for Embedding Learning (CVPR 2020 oral)	June 24, 2020
On the Relationship between Self-attention and Convolutional Layers (ICLR 2020)	Feb 13, 2020
Deep Meta Metric Learning (ICCV 2019)	Oct 16, 2019
Disentangling factors of variation using few labels (ICLR 2020)	July 17, 2019
GLoMo: Unsupervised Learning of Transferable Relational Graphs (NeurIPS 2018)	Apr 24, 2019
Towards Robust Interpretability with Self-Explaining Neural Networks (NeurIPS 2018)	Jan 29, 2019
Visualizing deep neural network decisions: Prediction difference analysis (ICLR 2017)	Nov 13, 2018
Attention is all you need (NeurIPS 2017)	Sep 18, 2018
Recurrent Neural Network Attention Mechanisms for Interpretable System Log Anomaly Detection	May 1, 2018
InfoGAIL: Interpretable Imitation Learning from Visual Demonstrations (NeurIPS 2017)	Feb 20, 2018
Input Switched Affine Networks: An RNN Architecture Designed for Interpretability (ICML 2017)	Nov 17, 2017