DAEJIN KIM

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EDUCATION

Korea Advanced Institute of Science and Technology Mar 2021 – Feb 2023 (Expected)
KAIST AI **GPA: 4.3/4.3**
Master Course in DAVIAN Laboratory (Professor: *Jaegul Choo*)

Sungkyunkwan University Mar 2017 – Feb 2021
Bachelor of Computer Science and Engineering **Major GPA: 4.39/4.5 (Great honor)**
Undergraduate research student in DIALLab Laboratory (Professor: *Jongwuk Lee*)

PUBLICATIONS

Mining Multi-Label Samples from Single Positive Labels 2022
*Conference on Neural Information Processing Systems (**NeurIPS**), 2022, Accepted.*
Youngin Cho, **Daejin Kim***, Mohammad Azam Khan and Jaegul Choo (*: equal contributions)*
· Propose a novel way to draw samples of joint classes (*e.g.,* $A \cap B$) using only single positive labels (*e.g.,* A, B).
· Estimate the conditional density of (non-)overlapping classes using MCMC method with logits of classifiers.

WaveBound: Dynamically Bounding Error for Stable Time Series Forecasting 2022
*Conference on Neural Information Processing Systems (**NeurIPS**), 2022, Accepted.*
Youngin Cho, **Daejin Kim***, Dongmin Kim, Mohammad Azam Khan and Jaegul Choo (*: equal contributions)*
· Introduce the dynamic error bounds to address the overfitting issue in time series forecasting.
· Propose a novel regularization method that estimates the training loss inevitably occurs in noisy patterns.

Residual Correction in Real-Time Traffic Forecasting 2022
*ACM International Conference on Information and Knowledge Management (**CIKM**), 2022, Accepted.*
Daejin Kim, Youngin Cho*, Dongmin Kim, Cheonbok Park and Jaegul Choo (*: equal contributions)*
· Identify that recent deep-learning-based traffic forecasting methods does not handle the residual autocorrelation.
· Propose a simple add-on module to reduce residual autocorrelation and consistently improve the performance.

Not just Compete, but Collaborate: Local Image-to-Image Translation via Cooperative Mask Prediction 2021
*IEEE Conference on Computer Vision and Pattern Recognition (**CVPR**), 2021, Accepted.*
***Daejin Kim**, Mohammad Azam Khan, and Jaegul Choo*
· Improve the existing face editing methods by preserving the attribute-irrelevant regions using Grad-CAM.
· Propose a novel loss that allows the generator and the discriminator to collaborate.

UNPUBLISHED / PROJECTS

Your Lottery Ticket is Damaged: Towards All-Alive Pruning for Extremely Sparse Networks 2020
Unpublished work
***Daejin Kim**, Minsoo Kim, Hyunjung Shim, and Jongwuk Lee*
· Explicitly handle the useless weights occurred by existing saliency-based pruning methods.
· Improve the performance of existing saliency-based pruning methods (e.g., MP, SNIP, LAP) at high sparsity.

SKILLS AND INTERESTS

Skills: PyTorch, Tensorflow, JS Framework (Node.js, AngularJS, …)
Interests: Explainable AI (XAI), Generative model, Network compression, Time series forecasting