Jang-Hyun Kim

blue378@snu.ac.kr scholar github homepage

Education

Seoul National University

M.S. & Ph.D. in Computer Science — Current

B.S. in Mathematical Science, *Summa Cum Laude* — 2019.Feb

- 2 years mandatory military service

Seoul Science High School — 2012.Feb

Experience

NAVER CLOVA — 2018.Aug - 2019.Jan

- AI global research residency (Advisor: Prof. Jaejun Yoo)
- Research on speech enhancement (github, demo)

Statistical Multiscale Analysis Laboratory, SNU — 2017.Dec - 2018.Aug

- Research internship (Advisor: Prof. Hee-Seok Oh)
- Research on Riemannian manifold learning (TPAMI21)

Deepest, SNU Deep Learning Community — 2017.Sep - 2020.Aug

- Community manager and project participant
- Caricature generation (github), source separation (Deep Complex U-Net)

True Balance, India Mobile App Service — 2017.Jan - 2017.Apr

- Data analysis intern
- Working with SQL, Spark, Python

Publications

Google scholar: 635 citations, i10-index of 6

[P3] Neural Relation Graph for Identifying Problematic Data
Jang-Hyun Kim, Sangdoo Yun, Hyun Oh Song
arXiv, 2023

[C4] Dataset Condensation via Efficient Synthetic-Data Parameterization
Jang-Hyun Kim, Jinuk Kim, Seong Joon Oh, Sangdoo Yun, Hwanjun Song, Joonhyun Jeong, Jung-Woo Ha, Hyun Oh Song
ICML, 2022

[J 2] *spherepc*: An R Package for Dimension Reduction on a Sphere
Jongmin Lee, **Jang-Hyun Kim**, Hee-Seok Oh
The R Journal, 2022

[C3] Uncertainty-Based Offline Reinforcement Learning with Diversified Q-ensemble
Gaon An*, Seungyong Moon*, **Jang-Hyun Kim**, Hyun Oh Song
NeurIPS, 2021

[C2] Co-Mixup: Saliency Guided Joint Mixup with Supermodular Diversity
Jang-Hyun Kim, Wonho Choo, Hosan Jeong, Hyun Oh Song
ICLR Oral, 2021

[J 1] Spherical Principal Curves
Jongmin Lee*, **Jang-Hyun Kim***, Hee-Seok Oh (*: equal contribution)
TPAMI, 2021

[C1] Puzzle Mix: Exploiting Saliency and Local statistics for Optimal Mixup
Jang-Hyun Kim, Wonho Choo, Hyun Oh Song
ICML, 2020

[P2] Phase-Aware Speech Enhancement with Deep Complex U-Net
Hyeong-Seok Choi, **Jang-Hyun Kim**, Jaesung Huh, Adrian Kim, Jung-Woo Ha, Kyogu Lee
arXiv, 2019

[P1] Multi-Domain Processing via Hybrid Denoising Networks for Speech Enhancement
Jang-Hyun Kim*, Jaejun Yoo*, Sanghyuk Chun, Adrian Kim, Jung-Woo Ha (*: equal contribution)
arXiv, 2018

Open Source

Google's Speaker Verification ★300+ (github, kaggle)
- TensorFlow implementation of "Generalized End-to-End Loss for Speaker Verification"

Puzzle Mix ★140+ (github)
- PyTorch implementation of "Puzzle Mix: Exploiting Saliency and Local statistics for Optimal Mixup"

Co-Mixup ★90+ (github)
- PyTorch implementation of "Co-Mixup: Saliency Guided Joint Mixup with Supermodular Diversity"

Efficient Dataset Condensation ★50+ (github)
- PyTorch implementation of "Dataset Condensation via Efficient Synthetic-Data Parameterization"

spherepc (package, document).
- R package of "Spherical Principal Curve"

Honors and Awards

Qualcomm Innovation Fellowship Korea	2021
Microsoft Research Asia Fellowship Nomination Award	2021
Youlchon AI Star Scholarship	2021
First Prize, Samsung Electronics & SNU Excellent Paper Award [C2]	2021
Korea Foundation for Advanced Studies (KFAS) Ph.D. Scholarship	2020 - 2024
Honorable Mention, Korean Statistics Society SG Poster Paper Award [J1]	2019
Silver Medal, Korean Contest of Mathematics for University Students	2017
Presidential Science Scholarship	2012 - 2019
Gold Medal, Korean Mathematical Olympiad (KMO)	2009

Professional Service

Conference Reviewer	NeurIPS 2021-2023, ICLR 2022-2023, ICML 2023
Program Committee	NeurIPS Workshop, "Interpolation Regularizers and Beyond", 2022 NeurIPS Workshop, "ImageNet: Past, Present, and Future", 2021

Teaching

SNU, Undergraduate Research Program	Research Mentor, Fall 2021
SNU, Machine Learning	Teaching Assistant, Fall 2021
SNU, Introduction To Deep Learning	Teaching Assistant, Spring 2020

References

Hyun Oh Song	Associate Professor, Dept. of Computer Science and Engineering, SNU (hyunoh@snu.ac.kr)
Hee-Seok Oh	Professor, Dept. of Statistics, SNU (heeseok@stats.snu.ac.kr)