

# Jang-Hyun Kim

blue378@snu.ac.kr  scholar  github  homepage

## Education

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### 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

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### 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

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Google scholar: 640+ citations, i10-index of 6

[P3] Neural Relation Graph: A Unified Framework for Identifying Label Noise and Outlier Data

**Jang-Hyun Kim**, Sangdoo Yun, Hyun Oh Song  
*arXiv* (under review), 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

[J2] *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

[J1] 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

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- Google's Speaker Verification ★330+ ([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 ★100+ ([github](#))
- PyTorch implementation of "Co-Mixup: Saliency Guided Joint Mixup with Supermodular Diversity"
- Efficient Dataset Condensation ★60+ ([github](#))
- PyTorch implementation of "Dataset Condensation via Efficient Synthetic-Data Parameterization"
- spherepc* ([package](#), [document](#)).
- R package of "Spherical Principal Curve"

## Honors and Awards

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

## Professional Service

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

## Teaching

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

## References

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