# Jang-Hyun Kim

blue378@snu.ac.kr  github  scholar

## Education

**Seoul National University**

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|---|---|
| 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 Highschool**                                                            2012.Feb

## Experience

**Machine Learning Laboratory, SNU**                                    2019.Mar - 2019.Aug
Research Internship (Advisor : Prof. Hyun Oh Song)

**NAVER CLOVA**                                                              2018.Aug - 2019.Jan
AI Global Research Residency
Research on speech enhancement and speaker verification (github, demo)

**Statistical Multiscale Analysis Laboratory, SNU**                      2017.Dec - 2018.Aug
Research Internship (Advisor : Prof. Hee-Seok Oh)
Research on manifold learning (Spherical Principal Curves, TPAMI)

**Deepest, SNU Deep Learning Student Community**                         2017.Sep - 2020.Aug
Caricature generation (github)
Source separation, speech enhancement (github)

**True Balance, Mobile App Service for India**                           2017.Jan - 2017.Apr
Data Analysis Intern
Work with SQL, Spark, Python

## Publications

[C4] Information-Intensive Dataset Condensation
   **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

Speaker Verification (code, paperswithcode, kaggle)
  - Implementation of 'Generalized End-to-End Loss for Speaker Verification', Google (+300 Github Stars)

R package *spherepc* (code, document).
  - Implementation of 'Spherical Principal Curve'

## Honors and Awards

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| Qualcomm Innovation Fellowship Korea | 2021 |
| Youlchon AI Star Scholarship | 2021 |
| **First Prize**, Samsung Electronics & SNU Excellent Paper Award [C2] | 2021 |
| **Third Prize**, Samsung Electronics & SNU Excellent Paper Award [C1] | 2020 |
| Korea Foundation for Advanced Studies (KFAS) Ph.D. Scholarship | 2020 - current |
| **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

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| **Conference Reviewer** | NeurIPS 2021, ICLR 2022, ICML 2022 |
| **Program Committee** | NeurIPS Workshop, "ImageNet: Past, Present, and Future", 2021 |

## Teaching

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| **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

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|---|---|
| **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) |