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Education

Ph.D. Biostatistics, University of Pittsburgh, Pittsburgh, Apr 2015.

M.S. Statistics, Korea University, Seoul, Feb 2010.

B.A. Education, Korea University, Seoul, Feb 2007.

Experiences

Associate Professor, Department of Applied Statistics, Konkuk University, 2018 - Present.

Assistant Professor, Department of Statistics, Keimyung University, 2017 - 2018.

Publications

[1] Hwang M., †, Jeong Y., **Kim S.**, Noh T., Jeong S., Jeong H. and Lee Y. (2025) A Two-Stage Diffusion Pipeline for Consistent Front-Back Clothing Generation, *Quantitative Bio-Science*.

[2] Kim J., Cartagena M. and **Kim S.*** (2025) Secure and Transparent Space Exploration Data Management Using a Hybrid Blockchain Model, *Applied Science*, *Corresponding author.

[3] Ko K., **Kim S.*** and Kwon H (2025) Selective Audio Perturbations for Targeting Specific Phrases in Speech Recognition, *Systems International Journal of Computational Intelligence Systems*, *Co-first author.

[4] Kim J., Lee Y., Yang S., Kim N. and **Kim S.*** (2025) SoulBound Token Recovery Mechanism and the Application of a Customer-Centric Gaurdian System, *Journal of The Korea Institute of Information Security & Cryptology*, *Corresponding author.

[5] Jeong Y., Noh T., Lee Y., Lee S., Choi K., Jeong S. and **Kim S.*** A Mobile LiDAR-Based Deep Learning Approach for Real-Time 3D Body Measurement (2024), *Applied Science*, *Corresponding author.

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[7] Jeong H., Moon H., Lee Y., Yang S. and **Kim S.*** (2023) Automated Technology for Strawberry Size Measurement and Weight Prediction Using AI, *IEEE Access*, *Corresponding

author.

- [8] Gwak H., Jeong Y., Kim C., Lee Y., Yang S. and **Kim S.*** (2023) A Multi-View Integrated Ensemble for the Background Discrimination of Semi-Supervised Semantic Segmentation, *Applied Science*, *Corresponding author.
- [9] Kwak H., Jeong Y., Kim C., Kwon H., Kwon H. and **Kim S.*** (2023) Ensemble Teacher: Semi-Supervised Semantic Segmentation with Teacher's Cross-Pseudo Supervision, *Quantitative Bio-Science*, *Corresponding author.
- [10] Heo S., Jung S., Kwak H., Jeong Y., Yang S., Lee Y. and **Kim S.*** (2023) Dental Image Data Generation for Instance Segmentation using Generative Adversarial Networks, *Quantitative Bio-Science*, *Corresponding author.
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- [12] Ko K., **Kim S.*** and Kwon H (2023) Multi-targeted Audio Adversarial Example for Use against Speech Recognition Systems, *Computers & Security*, *Co-first author.
- [13] Kwon H. and **Kim S.*** (2023) Dual-Mode Method for Generating Adversarial Examples to Attack Deep Neural Networks, *IEEE Access*, *Corresponding author.
- [14] Kim Y., Kwak H., Oh J., Kang M., Kim J., Kwon H. and **Kim S.*** (2023) CloudNet: A LiDAR-based Face Anti-Spoofing model that is robust against light variation, *IEEE Access*, *Corresponding author.
- [15] Kwon H. and **Kim S.*** (2022) Restricted-Area Adversarial Example Attack for Image Captioning Model, *Wireless Communications and Mobile Computing*, *Corresponding author.
- [16] Kim S., Moon H., Oh J., Lee Y., Kwon H. and **Kim S.*** (2022) Automatic Size Measurement of Garments Using Vision Deep Learning Models and Point-Cloud Data, *Applied Science*, *Corresponding author.
- [17] Kwon H., Ko K. and **Kim S.*** (2022) Optimized Adversarial Example Without Pattern Vulnerability of Classification Score, *IEEE Access*, *Corresponding author.
- [18] Lee Y., Oh J., **Kim S.*** (2022) Integrated Analytic Methodology Using Visual Image and Meta-Data for Product Recommendation, *Quantitative Bio-Science*, *Corresponding author.
- [19] Oh J., Lingnan P., Yang S., Lee Y. and **Kim S.*** (2022) An Investment Model Based on a Head-And-Shoulder Pattern with Multiple Moving Average Technical Indicators for Future Markets, *Quantitative Bio-Science*, *Corresponding author.
- [20] Lee, I., Choi J., Kim K., Suh J., Kim J. and **Kim S.** (2022) Suicide attempts presenting to the emergency department before and during the COVID-19 pandemic: a comparative study, *Clinical and Experimental Emergency Medicine*.
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- [22] Ko K., Kwak H., Thouummala N., Kwon H. and Kim S.* (2021) SqueezeFace: Integrative Face Recognition Methods with LiDAR Sensors, *Journal of Sensors*, *Corresponding author.
- [23] Lee H., Thouummala N., Park H., Ham S., Yu J., Hwang J., Heo S., Kim S.* (2021) AI-based Dental Prostheses Fabrication using Generative Adversarial Networks, *Quantitative Bio-Science*, *Corresponding author.
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- [27] Suh S., Park Y., Ko K., Yang S., Ahn J., Shin J. and Kim S.* (2020) Weighted Mask R-CNN for Improving Adjacent Boundary Segmentation, *Journal of Sensors*, *Corresponding author.
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- [32] Lim J., Bang S., Kim J., Park C., Cho J. and Kim S.* (2019) Integrative deep learning for identifying differentially expressed(DE) biomarkers, *Computational and Mathematical Methods in Medicine* (SCIE), *Corresponding author.
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Science, * Corresponding author.

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- [38] Lee J., **Kim S.***, Jhong J. and Koo J. (2018) Variable Selection and Joint Estimation of Mean and Covariance Models with an Application to eQTL Data, *Computational and Mathematical Methods in Medicine* (SCIE), *Corresponding author.
- [39] **Kim S.**, Kang D. D., Park Y. and Tseng G. C. (2018) Meta-analytic Principal Component Analysis in Integrative Omics Application, *Bioinformatics* (SCI).
- [40] Ma T., Huo Z., Kuo A., Zhu L., Fang Z., Zeng X., Lin C., Liu S., Wang L., Rahman T., Chang L., **Kim S.** et al. (2018) MetaOmics: Analysis Pipeline and Browser-based Software Suite for Transcriptomic Meta-Analysis, *Bioinformatics* (SCI).
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- [44] **Kim S.**, Lee J., Jhong J. and Koo J-Y. (2017) Meta-analytic Support Vector Machine for Integrating Multiple Omics Data, *BioData Mining*, 10:2 (SCIE).
- [45] Han S.* , **Kim S.***, Seok J., Yoon J. and Zhong H. (2017) Estimation of Directed Subnetworks in Ultra High Dimensional Data for Gene Network Problem, *Statistics and Its Interface* (SCIE), *Joint first authors.
- [46] **Kim S.** (2016) Weighted K-means Support Vector Machine for Cancer Prediction, *SpringerPlus (section in statistics)*, 5:1162 (SCIE).
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- Triple positive and Triple negative breast cancer genes, *Journal of Breast Cancer* (SCIE).
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- [51] Hwang H., **Kim S.** and Kim H. (2016) Reversible Data Hiding Using Sparse Least Square Predictor via the Lasso, *EURASIP Journal on Image and Video Processing*, 2016:42 (SCIE).
- [52] Herazo-Maya J. D.* , Noth I.* , Duncan S. R.* , **Kim S.**, Ma S., Tseng G. C., Feingold E., Juan-Guardela B. M., Richards T. J., Lussier Y., Huang Y., Vij R., Lindell K. O., Xue J., Gibson K. F., Shapiro S. D., Garcia J. G., and Kaminski N. (2013) Peripheral Blood Mononuclear Cell Gene Expression Profiles Predict Poor Outcome in Idiopathic Pulmonary Fibrosis, *Science Translational Medicine*, 5, 205-136 (SCIE).
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- [55] Suryawanshi S., Budiu R. A., Elishaev E., Zhang L., **Kim S.**, Tseng C. G., Mantia-Smaldone G., Ma T., Donnellan N., Lee T., Mansuria S., Edwards R., Huang X. and Vlad A. M. (2014) Complement Pathway Is Frequently Altered in Endometriosis and Endometriosis-Associated Ovarian Cancer, *Clinical Cancer Research*, 23, 6163-74 (SCIE).
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Book Chapter

- [1] **Kim S.**, Huo Z., Park Y. and Tseng G. C. (2015) MetaOmics: Transcriptomic Meta-Analysis Methods for Biomarker Detection, Pathway Analysis and Other Exploratory Purposes pp. 39-67, Book chapter in Integrating omics data: statistical and computational methods. *Cambridge University Press*.

Honors, Awards & Fellowships

2022 Contribution to Research Award, Konkuk Univ, May, 2022.

2015 Best Student Presentation Awards, Graduate School of Public Health, University

of Pittsburgh, Mar, 2015.

2015 Student of the Year, ASA Pittsburgh Chapter, Apr 2015.

ASA Biometrics Section David P Byar Travel Award, American Statistical Association (ASA), Aug 2015.

Title: "Integrative multi-omics clustering for disease subtype discovery by sparse overlapping group lasso and tight clustering".

Distinguished Student Paper Award for ENAR 2015, ENAR, Mar 2015.

Title: "Integrative multi-omics clustering for disease subtype discovery by sparse overlapping group lasso and tight clustering".

References

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