

Taehyo Kim

CONTACT INFORMATION	1411 31st Avenue Astoria, NY 11106	tk2737@nyu.edu  
EDUCATION	New York University , New York, NY Ph.D. in Biostatistics • Dissertation: <i>Modern Statistical Machine Learning Approaches for Alzheimer's Disease Research</i> • Advisor: Dr. Hai Shu New York University , New York, NY M.S. in Computer Science University of Toronto , Toronto, ON B.A.Sc in Computer Engineering, minor in Biomedical Engineering	Expected January 2027 June 2022 June 2020
RESEARCH INTERESTS	Machine/Deep learning in Healthcare, High dimensional data, Multi-modal feature integration	
HONORS AND AWARDS	Runner-up Student Paper Award, ASA Statistics in Imaging Section DataFest Finalist, Eastern North American Region of the International Biometric Society Student Travel Award, American Statistical Association PhD Fellowship Award, New York University Certificate for Artificial Intelligence Engineering, University of Toronto International Summer Research Award, University of Toronto Gold Award, The Duke of Edinburgh's Award	2024 2024 2024 2022 2020 2019 2015
PROFESSIONAL EXPERIENCE	Graduate Student Researcher Hai Shu Lab • Developed statistical machine learning methods for high-dimensional biomedical data for use in multiple hypothesis testing, sparse canonical correlation analysis, and survival modeling. Graduate Student Researcher Biofeedback Intervention Technology for Speech Lab, NYU Steinhardt • Applied self-supervised learning (ViViT-based BYOL, VideoMAE) to identify articulatory differences in clinically inaccurate /r/ pronunciations in children with speech sound disorders. Statistical Fellow Biostatistical Collaboration and Consultation Core, NYU • Prepared statistical analysis plans for clients and conducted statistical data analyses to support manuscript development. Software Developer Intern N.I Institute for Health • Wrote MATLAB functions to automate cleaning and quality checks for a 76TB neural dataset. Software Developer Intern Epson • Released the Android and Windows Software Development Kit (SDK) designed for augmented reality smart-glasses, following Alpha Testing and unit testing protocols.	2020 - present New York, NY 2024 - present New York, NY Summer 2024 New York, NY Summer 2019 Kent Ridge, Singapore May 2018 - May 2019 Markham, ON

PUBLICATIONS	Kim, T. , Jia, Q., de Leon, M. J., Shu, H. (2025). A False Discovery Rate Control Method Using a Fully Connected Hidden Markov Random Field for Neuroimaging Data. arXiv preprint arXiv:2505.20688. Under Review at <i>Medical Image Analysis</i> . [Paper] [Code]	
	Kim, T. , Shu, H., Jia, Q., de Leon, M. J. (2024). DeepFDR: A Deep Learning-based False Discovery Rate Control Method for Neuroimaging Data. <i>Proceedings of machine learning research</i> , 238, 946–954. [Paper] [Code]	
	Tang, T., Chen, Y., Kim, T. , Shu, H. (2024). UKAN-EP: Enhancing U-KAN with Efficient Attention and Pyramid Aggregation for 3D Multi-Modal MRI Brain Tumor Segmentation. arXiv preprint arXiv:2408.00273. Under Review at <i>BMC Medical Imaging</i> . [Paper] [Code]	
TALKS AND PRESENTATIONS	Hosseini, M. S., Bejnordi, B. E., Trinh, V. Q., Chan, L., Hasan, D., Li, X., Yang, S., Kim, T. , Zhang, H., Wu, T., Chinniah, K., Maghsoudlou, S., Zhang, R., Zhu, J., Khaki, S., Buin, A., Chaji, F., Salehi, A., Nguyen, B. N., Samaras, D., . . . , Plataniotis, K. N. (2024). Computational Pathology: A Survey Review and the Way Forward. <i>Journal of pathology informatics</i> , 15, 100357. [Paper]	
	"A Global Understanding of Work Enjoyment and Human Wellbeing" Poster, Joint Statistical Meetings, Portland, OR	August 2025
	"Causal Determinants of Blood Pressure Control among US Adults with Hypertension: A Data Driven Causal Graphical Learning, NHANES 2013 to 2023" Poster, ENAR Spring Meeting, New Orleans, LA	March 2025
	"DeepFDR: A Deep Learning-based False Discovery Rate Control Method for Neuroimaging Data" Oral, Joint Statistical Meetings, Portland, OR	August 2024
	"DeepFDR: A Deep Learning-based False Discovery Rate Control Method for Neuroimaging Data" Poster, International Conference in Artificial Intelligence and Statistics, Valencia, Spain	May 2024
	"Enhancing AI-based Speech Therapy through Acoustic to Articulatory Mapping" Poster, AI Research Symposium: Bridging AI Innovation and Societal Impact New York, NY	April 2024
TEACHING EXPERIENCE	"Machine Learning-driven Risk Factor Identification on Post-2013 Blood Pressure Control Decline in Hypertensive Populations" Oral, ENAR Spring Meeting, Baltimore, MD	March 2024
	Teaching Assistant , New York University, New York, NY	
	Applied Bayesian Analysis in Public Health (GPH-GU 2272/3372)	Fall 2024
	Applied Survival Analysis (GPH-GU 2368/3368)	Spring 2024
	Statistical Inference (GPH-GU 3225)	Fall 2023
	Graduate Student Mentor , New York University, New York, NY	
SKILLS	Pathways into Quantitative Aging Research Summer Program	Summer 2024
	Pathways into Quantitative Aging Research Summer Program	Summer 2022
	<ul style="list-style-type: none"> • Programming: Python, R, C++, C, C#, Java, MATLAB, Shell • Frameworks: PyTorch, TensorFlow, Keras, OpenCV, Git, Spark, Hadoop, Numba, JAX • Machine Learning: GLM, PCA, CCA, Random Forest, U-Net, W-Net, Transformers, Masked Autoencoders, Video Vision Transformers, Diffusion Models, Self-Supervised Learning 	