

CONTACT	Email: zijianc@bu.edu Homepage: https://zchen.pro 
SHORT BIO	Experienced machine learning researcher with a strong math background. Trained as a problem-oriented engineer in statistical signal processing and unstructured data analysis, and still passionate about advanced methodological development. Proven ability in interdisciplinary collaboration, independent research, written and oral communication to diverse audiences, and mentoring. Graph and Manifold Learning · Unstructured Data Analysis · Stochastic Modeling
EDUCATION	Boston University 2023-Now Ph.D. Candidate in Electrical Engineering (Advisor: Archana Venkataraman  University of Wisconsin - Madison 2021-2023 M.A. in Mathematics (Advisor: Hao Shen  East China Normal University & Shanghai Jiao Tong University 2018-2022 B.S. in Statistics, minor in Mathematics (Joint Program)
CODING AND SOFTWARE	ML/DL/Data Science: Python (PyTorch, Scikit-learn, SciPy, Numpy, Pandas, TensorFlow) Scientific Algorithm Development: MATLAB, C++ Others: R, Git, Docker
SELECTED PUBLICATIONS	5. Behavior-Informed Subgroup-Consistent Connectome Template for Interpretable Brain Network Zijian Chen , Stefen Beeler, . . . , Archana Venkataraman (7 authors) <i>MICCAI'25</i> . 4. A Lesion-aware Edge-based Graph Neural Network for Predicting Language Ability in Patients with Post-stroke Aphasia Zijian Chen , Maria Varkanitsa, . . . , Archana Venkataraman (7 authors) <i>MLCN workshop at MICCAI'24</i> . [oral] 3. QID ² : An Image-Conditioned Diffusion Model for Q-space Up-sampling of DWI Data Zijian Chen , Jueqi Wang, Archana Venkataraman, <i>CDMRI workshop at MICCAI'24</i> . [oral] 2. Sulcal Pattern Matching with the Wasserstein Distance Zijian Chen , Soumya Das, Moo K. Chung, <i>ISBI'23</i> [oral] 1. Modeling Cycles in Brain Networks Using Hodge Laplacian Sixtus Dakurah, D. Vijay Anand, Zijian Chen , Moo K. Chung <i>MICCAI'22</i> . [travel award]
INVITED TALKS AND LECTURES	Introduction to Modern Graph Neural Networks 2025 Guest Lecture (105 min) for <i>Deep Learning</i> course at BU Invited by Brian Kulis  Sulcal Pattern Analysis as an Optimal Transport Problem 2023 ISBI 2023 Special section <i>Wasserstein Distance in Biomedical Imaging</i> Invited by Moo K. Chung 
SERVICE	Research in Science & Engineering (RISE) Program @ BU 2025 Mentored one high school student for summer research project on modeling ASD brain states. Title: <i>Temporal Dynamics in Brain Activity associated with Autism</i> Madison Experimental Mathematics Lab @ UW-Madison 2022 Mentored four students for undergraduate research project on Ergodic Theory and Dynamics. Title: <i>Vectors of smallest slope for translation surfaces</i>

Directed Reading Program @ UW-Madison 2022
 Organized and mentored a reading group for undergraduate students.
 Topic of the semester: *Probabilistic perspectives in machine learning*

Reviewer for IEEE TMI (1 per month), MICCAI, ISBI 2022-Present

Teaching Assistant for Foundations in Probabilistic Machine Learning (BU), Deep Learning (BU), Probability (BU), Biostatistics (ECNU).

AWARDS AND
FELLOWSHIPS

National First Prize in Chinese Undergraduate Mathematical Modeling Contest. 2020
National Third Prize in Chinese Undergraduate Mathematics Competition. 2019
Finalist (top 1%) in Mathematical Contest in Modeling (MCM/ICM). 2019
 ECNU Outstanding Student Fellowship (\approx Dean's List) 2019,2020,2021