Yuning You

Ph.D. Candidate at Texas A&M University

Email: yuning.you@tamu.edu ♦ Homepage: yyou1996.github.io

RESEARCH INTERESTS

Machine learning on non-Euclidean data (e.g. graphs or hypergraphs) with practical constraints, with fundamental understanding in theory and challenging real-world applications to biomedicines.

EDUCATION & PROFESSIONAL EXPERIENCES

Texas A&M University, College Station

Aug 2019 – Present

Ph.D. Candidate in Electrical Engineering

Graduate Research Assistant in Department of Electrical and Computer Engineering

Advisor: Prof. Yang Shen & (Co-Advisor) Prof. Zhangyang Wang

Research Topic: Graph Machine Learning, Computational Drug Discovery

Xi'an Jiaotong University, Xi'an

Aug 2015 – Jun 2019

Bachelor of Engineering in Information Engineering

Genentech, Inc., South San Francisco

May 2023 – Aug 2023

Early Clinical Development/AIML Intern in Genentech Research and Early Development (gRED) Advisor: Dr. Changlin Wan & Dr. Kai Liu; Research Topic: Spatial Transcriptomics

insitro, Inc., South San Francisco

May 2022 – Aug 2022

ML Small Molecules Intern in Department of Data Science and Machine Learning

Advisor: Dr. Bowen Liu & Ralph Ma; Research Topic: Bioactivity Signatures for Small-Molecules

Amazon.com Services, Inc., Remote

Jun 2021 - Aug 2021

Applied Scientist Intern in Product Semantics Team

Advisor: Dr. Tong Zhao; Research Topic: E-Commerce Product Network Embedding

PUBLICATIONS (1700+ Citations [Google Scholar])

NeurIPS'23 [link]: "Graph Mixture of Experts: Learning on Large-Scale Graphs with Explicit Diversity Modeling", H. Wang, Z. Jiang, Y. You, Y. Han, G. Liu, J. Srinivasa, R. Kompella, Z. Wang, Conference on Neural Information Processing Systems. (26.10% Acceptance Rate)

Preprint'23 [link]: "Critical Assessment of Variant Prioritization Methods for Rare Disease Diagnosis within the Rare Genomes Project", ..., **Y. You**, ..., medRxiv.

IEEE Data Engineering Bulletin'23 [link]: "Graph Contrastive Learning: An Odyssey towards Generalizable, Scalable and Principled Representation Learning on Graphs", Y. Han, Y. You, W. Zheng, S. Hoang, T. Wei, M. Hassan, T. Chen, Y. Ding, Y. Shen, Z. Wang. (Invited Article)

ICLR'23 [link]: "Graph Domain Adaptation via Theory-Grounded Spectral Regularization", Y. You, T. Chen, Z. Wang, Y. Shen, *International Conference on Learning Representations*. (31.80% Acceptance Rate)

MLSB@NeurIPS'22 [link]: "Does Inter-Protein Contact Prediction Benefit from Multi-Modal Data and Auxiliary Tasks?", A. Talukder, R. Yin, Y. Sun, Y. Shen, Y. You, Machine Learning for Structural Biology Workshop, Conference on Neural Information Processing Systems.

NeurIPS'22 [link]: "Augmentations in Hypergraph Contrastive Learning: Fabricated and Generative", T. Wei*, Y. You*, T. Chen, Y. Shen, J. He, Z. Wang, Conference on Neural Information Processing Systems. (*Equal Contribution, 25.60% Acceptance Rate)

Bioinformatics'22 [link]: "Cross-Modality and Self-Supervised Protein Embedding for Compound-Protein Affinity and Contact Prediction", Y. You, Y. Shen. (impact factor 6.93, MoML'22, ECCB'22 with 17.40% Acceptance Rate, 3DSIG COSI@ISMB/ECCB'21, MLSB@NeurIPS'20)

ICLR'22 [link]: "Bayesian Modeling and Uncertainty Quantification for Learning to Optimize: What, Why, and How", Y. You, Y. Cao, T. Chen, Z. Wang, Y. Shen, *International Conference on Learning Representations*. (32.29% Acceptance Rate)

WSDM'22 [link]: "Bringing Your Own View: Graph Contrastive Learning without Prefabricated Data Augmentations", Y. You, T. Chen, Z. Wang, Y. Shen, ACM International Conference on Web Search and Data Mining. (20.22% Acceptance Rate)

ICML'21 Long Presentation [link]: "Graph Contrastive Learning Automated", Y. You, T. Chen, Y. Shen, Z. Wang, International Conference on Machine Learning. (3.01% Acceptance Rate)

TVT'21 [link]: "Probabilistic Constructive Interference Precoding for Imperfect CSIT", G. Lyu, Y. You, A. Li, X. Liao, C. Masouros, *IEEE Transactions on Vehicular Technology*. (impact factor 5.97)

KDF@AAAI'21 Oral [link]: "AR-Stock: Deep Augmented Relational Stock Prediction", T. Wei, **Y. You**, T. Chen, *Knowledge Discovery from Unstructured Data in Financial Services Workshop*, Association for the Advancement of Artificial Intelligence Conference.

NeurIPS'20 [link]: "Graph Contrastive Learning with Augmentations", Y. You*, T. Chen*, Y. Sui, T. Chen, Z. Wang, Y. Shen, Conference on Neural Information Processing Systems. (*Equal Contribution, 20.09% Acceptance Rate, 1000+ Citations)

ICML'20 [link]: "When Does Self-Supervision Helps Graph Convolutional Networks?", Y. You*, T. Chen*, Z. Wang, Y. Shen, *International Conference on Machine Learning*. (*Equal Contribution, 21.80% Acceptance Rate)

CVPR'20 [link]: "L²-GCN: Layer-Wise and Learned Efficient Training of Graph Convolutional Networks", Y. You*, T. Chen*, Z. Wang, Y. Shen, *IEEE/CVF Conference on Computer Vision and Pattern Recognition*. (*Equal Contribution, 22.08% Acceptance Rate)

IPAS'18 [link]: "An Optimization Approach of Compressive Sensing Recovery Using Split Quadratic Bregman Iteration with Smoothed ℓ_0 Norm", G. Yang, Y. You, Z. Lu, J. Yang, Y. Wang, *IEEE International Conference on Image Processing, Applications and Systems*.

HONORS & AWARDS

ECEN Quality Graduate Student Award, Texas A&M University, Department of Electrical and Computer Engineering (5 awardees in ECEN).

Apr 2023

NSF Student Travel Awards, ACM International Conference on Web Search and Data Mining.

Dec 2021

Chevron Scholarship, Texas A&M University, Department of Electrical and Computer Engineering.

Sep 2021

Electrical and Computer Engineering PhD Merit Fellowship, Texas A&M University, Department of Electrical and Computer Engineering. Feb 2019

TALKS & SERVICES

Texas A&M University, Prof. James Cai's Group, online.	Oct 2023
Genentech, Inc., Spatial Omics Journal Club, online.	Aug 2023
AstraZeneca plc, AI&A Journal Club, online.	Mar 2022
University of Texas at Austin, Prof. Mingyuan Zhou's Group, online.	Oct 2021

Technical University of Munich, the Learning on Graphs and Geometry Reading Group (LoGaG), online.

Aug 2021

ISMB/ECCB'21, COSI: Structural Bioinformatics and Computational Biophysics (3DSIG), online. [video] Jul 2021

ICML'21, Session of Semisupervised and Unsupervised Learning, online. [video]

 $\mathrm{Jul}\ 2021$

Session Chair of Semisupervised and Unsupervised Learning at ICML'21.

Reviewer in Conferences of ISMB/ECCB'21,23, ACM-BCB'21,23, ICML'21-23, NeurIPS'21-23, ICLR'22, WWW'22, LoG'22; Journals of TPAMI'21,23, INS'21, TNNLS'21-23, PeerJ'21, NEPL'21, JCST'22, SIPN'22, TKDE'22, TAI'22, TMLR'23, INFFUS'23, JBS'23.