Yuning You

Ph.D. Student at Texas A&M University
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RESEARCH INTERESTS

Machine learning on non-Euclidean data (e.g. **graphs**) with limited labels and distribution shifts, with fundamental understanding in theory and challenging real-world applications to **biomedicines**.

EDUCATION

Texas A&M University, College Station — Aug 2019 - Present
Ph.D. Student in Electrical Engineering
Advisor: Prof. Yang Shen (Co-Advisor: Prof. Zhangyang Wang)

Xi'an Jiaotong University, Xi'an — Aug 2015 - Jun 2019
Bachelor of Engineering in Information Engineering

SELECTED PUBLICATIONS

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)

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)

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

PROFESSIONAL EXPERIENCES

Early Clinical Development/AIML Intern — May 2023 - Present
Genentech Research and Early Development (gRED), **Genentech, Inc.**, South San Francisco
Advisor: Dr. Changlin Wan
Research Topic: TBD

ML Small Molecules Intern — May 2022 - Aug 2022
Department of Data Science and Machine Learning, **insitro, Inc.**, South San Francisco
Advisor: Dr. Bowen Liu & Ralph Ma
Research Topic: Bioactivity Signatures for Small-Molecules

Applied Scientist Intern — Jun 2021 - Aug 2021
Product Semantics Team, **Amazon.com Services, Inc.**, Remote
Advisor: Dr. Tong Zhao
Research Topic: E-Commerce Product Network Embedding

Graduate Research Assistant — Sep 2020 - Present
Department of Electrical and Computer Engineering, **Texas A&M University**, College Station
Advisor: Prof. Yang Shen & Prof. Zhangyang Wang
Research Topic: Graph Machine Learning, Computational Drug Discovery

Voluntary Research Assistant — May 2019 - Aug 2019
Intelligence SciencE and systEm Lab (iSEE), School of Data and Computer Science, **Sun Yat-Sen University**, Guangzhou
Advisor: Prof. Wei-Shi Zheng & Yuanxun Li
Research Topic: Skeleton-Based Action Recognition, Graph Convolutional Networks

Voluntary Research Assistant Sep 2018 - Apr 2019
State Key Laboratory for Strength and Vibration of Mechanical Structures, School of Aerospace Engineering, **Xi'an Jiaotong University**, Xi'an
Advisors: Dr. Gangming Lyu & Prof. Guiyan Rong
Research Topic: Symbol-Level Precoding in Wireless Transmission

Voluntary Research Assistant Jul 2018 - Aug 2018
Optical+Biomedical Engineering Laboratory (OBEL), School of Electrical, Electronic & Computer Engineering, **University of Western Australia**, Perth
Advisors: Dr. Karol Karnowski & Prof. Barry Cense
Research Topic: Optical Coherence Tomography

HONORS & AWARDS

ECEN Quality Graduate Student Award, Texas A&M University, Department of Electrical and Computer Engineering. 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

AstraZeneca, 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] 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'21-22, ICLR'22, WWW'22, LoG'22; workshops of NeurIPS'20 SSL, WWW'21 SSL, ICML'21 SSL, WWW'22 MLoG; 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.

PUBLICATIONS [Google Scholar]

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, *Bioinformatics.* (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)

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]: "L^2-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.*