

# Yuning You

Ph.D. Candidate at Texas A&M University

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## RESEARCH FOCUS

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**Machine learning** on structural data (e.g. **graphs** or hypergraphs), with fundamental understanding in theory and applications to real-world problems in **biomedicine**.

## EXPERIENCES

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 **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

Advisors: Prof. [Yang Shen](#) & Prof. [Zhangyang Wang](#)

 **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)

 **insitro, Inc.**, South San Francisco May 2022 – Aug 2022

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

 **Amazon.com Services, Inc.**, Remote Jun 2021 – Aug 2021

Applied Scientist **Intern** in Product Semantics Team

## PUBLICATIONS [\[Google Scholar\]](#)

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**HUGO'24** [\[link\]](#): “Critical Assessment of Variant Prioritization Methods for Rare Disease Diagnosis within the Rare Genomes Project”, ..., **Y. You**, ..., *Human Genomics*, vol. xx, pp. xx-xx, 2024. (Impact Factor 4.50, Outcome of [CAGI6 RGP](#))

**Preprint'24** [\[link\]](#): “Correlational Lagrangian Schrödinger Bridge: Learning Dynamics with Population-Level Regularization”, **Y. You**, R. Zhou, Y. Shen, *arXiv*, 2024.

**MLGenX@ICLR'24** [\[link\]](#): “Multi-Modal Contrastive Learning for Proteins by Combining Domain-Informed Views”, H. Xu, **Y. You**, Y. Shen, *Machine Learning for Genomics Explorations Workshop, International Conference on Learning Representations*, 2024.

**ICLR'24** [\[link\]](#): “Latent 3D Graph Diffusion”, **Y. You**, R. Zhou, J. Park, H. Xu, C. Tian, Z. Wang, Y. Shen, *International Conference on Learning Representations*, oprev., 2024. (Acceptance Rate 31.00%)

**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*, pp. 50825-50837, 2023. (Acceptance Rate 26.10%)

**DEBULL'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, *IEEE Data Engineering Bulletin*, vol. 47(2), pp. 80-95, 2023. (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*, oprev., 2023. (Acceptance Rate 31.80%)

**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*, 2022.

**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*, pp. 1909-1922, 2022. (\*Equal Contribution, Acceptance Rate 25.60%)

**Bioinformatics'22** [\[link\]](#): “Cross-Modality and Self-Supervised Protein Embedding for Compound-Protein Affinity and Contact Prediction”, **Y. You**, Y. Shen, *Bioinformatics*, vol. 38(supp2), pp. 68-74, 2022. (Impact Factor 6.93, MoML'22, ECCB'22 with Acceptance Rate 17.40%, 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*, oprev., 2022. (Acceptance Rate 32.29%)

**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*, pp. 1300-1309, 2022. (Acceptance Rate 20.22%)

**ICML'21 Long Presentation** [\[link\]](#): “Graph Contrastive Learning Automated”, **Y. You**, T. Chen, Y. Shen, Z. Wang, *International Conference on Machine Learning*, pp. 12121-12132, 2021. (Acceptance Rate 3.01%)

**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*, vol. 70(4), pp. 3932-3937, 2021. (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*, 2021.

**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*, pp. 5812-5823, 2020. (\*Equal Contribution, Acceptance Rate 20.09%)

**ICML'20** [\[link\]](#): “When Does Self-Supervision Helps Graph Convolutional Networks?”, **Y. You**\*, T. Chen\*, Z. Wang, Y. Shen, *International Conference on Machine Learning*, pp. 10871-10880, 2020. (\*Equal Contribution, Acceptance Rate 21.80%)

**CVPR'20** [\[link\]](#): “L<sup>2</sup>-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*, pp. 2127-2135, 2020. (\*Equal Contribution, Acceptance Rate 22.08%)

**IPAS'18** [\[link\]](#): “An Optimization Approach of Compressive Sensing Recovery Using Split Quadratic Bregman Iteration with Smoothed  $\ell_0$  Norm”, G. Yang, **Y. You**, Z. Lu, J. Yang, Y. Wang, *IEEE International Conference on Image Processing, Applications and Systems*, pp. 226-231, 2018.

## AWARDS

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

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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, 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

## SERVICES

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Session Chair of Semisupervised and Unsupervised Learning at ICML'21.  
Reviewer in Conferences of ICML'21-23, NeurIPS'21-23, ICLR'22,24, WWW'22, LoG'22, ISMB/ECCB'21,23-24, ACM-BCB'21,23; Journals of TPAMI'21,23, TMLR'23, TNNLS'21-23, TKDE'22, TAI'22, INS'21, PeerJ'21, NEPL'21, JCST'22, SIPN'22, INFFUS'23, JBS'23.