


Yuning You


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RESEARCH FOCUS

Machine learning algorithms to analyze structural data (e.g. graphs), and their applications to building virtual biological systems for simulating complex biological behaviors (e.g. virtual tissues).


EXPERIENCES

 **California Institute of Technology**, Pasadena, California Jul 2024 – Present
Postdoctoral Scholar in Division of Biology and Biological Engineering
Advisor: Prof. [Matt Thomson](#)

 **Texas A&M University**, College Station, Texas Aug 2019 – Aug 2024
Ph.D. in Electrical Engineering
Graduate Research Assistant in Department of Electrical and Computer Engineering (Part-Time)
Sep 2020 – May 2024
Advisors: Prof. [Yang Shen](#) & Prof. [Zhangyang \(Atlas\) Wang](#)

 **Xi'an Jiaotong University**, Xi'an, Shaanxi Aug 2015 – Jun 2019
B.Eng. in Information Engineering

 **Genentech, Inc.**, South San Francisco, California May 2023 – Aug 2023
Early Clinical Development/AIML Intern in Genentech Research and Early Development

 **insitro, Inc.**, South San Francisco, California May 2022 – Aug 2022
ML Small Molecules Intern in Department of Data Science and Machine Learning

PUBLICATIONS (Check Full List on [\[Google Scholar\]](#))

MLGenX'25 [\[link\]](#): “Building Foundation Models to Characterize Cellular Interactions via Geometric Self-Supervised Learning on Spatial Genomics”, **Y. You**, Z. Wang, K. Fleisher, R. Liu, M. Thomson, *Machine Learning for Genomics Explorations Workshop, International Conference on Learning Representations*, 2025.

AIDrugX@NeurIPS'24 [\[link\]](#): “Correlational Lagrangian Schrödinger Bridge: Learning Dynamics with Population-Level Regularization”, **Y. You**, R. Zhou, Y. Shen, *AI for New Drug Modalities Workshop, Conference on Neural Information Processing Systems*, 2024.

HUGO'24 [\[link\]](#): “Critical Assessment of Variant Prioritization Methods for Rare Disease Diagnosis within the Rare Genomes Project”, ..., **Y. You**, ..., *Human Genomics*, vol. 18(44), 2024. (Impact Factor 4.50, Outcome of [CAGI6 RGP](#))

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%)

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%)

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(Supplement_2), 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)

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 [\[link\]](#): “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*, pp. 2127-2135, 2020. (*Equal Contribution, Acceptance Rate 22.08%)

AWARDS

Distinguished Graduate Student Award for Excellence in Research, Association of Former Students of Texas A&M University [\[link\]](#) Mar 2025

ECEN Quality Graduate Student Award, Department of Electrical and Computer Engineering, Texas A&M University Apr 2023

NSF Student Travel Awards, ACM International Conference on Web Search and Data Mining Dec 2021

Chevron Scholarship, Department of Electrical and Computer Engineering, Texas A&M University Sep 2021

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

TALKS

University of Southern California, Prof. [Leonardo Morsut](#)'s Lab, Los Angeles Aug 2025

Texas A&M University, Prof. [James Cai](#)'s Lab, 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, [3DSIG COSI: Structural Bioinformatics and Computational Biophysics](#), online [\[video\]](#) Jul 2021
ICML'21, [Session of Semisupervised and Unsupervised Learning](#), online [\[video\]](#) Jul 2021

SERVICES

Area Chair of [New Perspectives in Advancing Graph Machine Learning Workshop](#) at NeurIPS'25

Co-Organizer of [AI Bootcamp VIII on Graph Machine Learning](#) at Caltech

Session Chair of [Semisupervised and Unsupervised Learning](#) at ICML'21

Reviewer in Conferences of ICML'21-24, NeurIPS'21-24, ICLR'22,24-25, WWW'22, LoG'22,24, ISMB/ECCB'21,23-24, ACM-BCB'21,23,24; Journals of TPAMI'21,23, TMLR'23, TNNLS'21-23, TKDE'22, TAI'22, INS'21, PeerJ'21, NEPL'21, JCST'22,24, SIPN'22, INFFUS'23, JBS'23, CSUR'24, Nature Communications Chemistry'25