# Yuning You

## RESEARCH FOCUS

Machine learning on non-Euclidean data (e.g. graphs or point clouds) and in dynamical systems, with fundamental understanding in theory and applications to real-world problems in life sciences (in particular modeling of molecular and cellular systems).

## **EXPERIENCES**

California Institute of <u>Tech</u>nology, Pasadena, California

Jul 2024 - (Expt.) Aug 2025

Postdoctoral Scholar in Division of Biology and Biological Engineering

Advisor: Prof. Matt Thomson

Texas <u>A&M</u> <u>University</u>, 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])

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 <u>CAGI6 RGP</u>)

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%)

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(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)

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%)

## **AWARDS**

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

Jul 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**

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
${\rm ISMB/ECCB'21,} \ \rm 3DSIG\ COSI:\ Structural\ Bioinformatics\ and\ Computational\ Biophysics\ Co$	
	Jul 2021

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

#### **SERVICES**

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.