Yuning You

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RESEARCH FOCUS & ACHIEVEMENT HIGHLIGHTS

Machine learning algorithms for structural data mining (e.g. graphs, point clouds, and fields), and their use in building biological simulators for living organisms at multiple scales (e.g. virtual tissues).

- Presidential Young Fellow, The Chinese University of Hong Kong, Shenzhen
- Top 2% Scientists in 2024, Departments of METRICS, Stanford University/Elsevier [link]
- Distinguished Graduate Student Award for Excellence in Research, Association of Former Students of Texas A&M University (9 awardees in 2025) [link]

EXPERIENCES

The Chinese University of Hong Kong, Shenzhen, Guangdong — Sep 2025 – Present
Assistant Professor in School of Science and Engineering
Affiliated with Future Network of Intelligence Institute

California Institute of Technology, Pasadena, California — Jul 2024 – Aug 2025
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 (Please check the full list on [Google Scholar])

LoG'25 [link]: "When Structure Doesn't Help: LLMs Do Not Read Text-Attributed Graphs as Effectively as We Expected", H. Xu, **Y. You**, T. Ma, *Learning on Graphs Conference*, 2025.

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]: "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*, pp. 2127-2135, 2020. (*Equal Contribution, Acceptance Rate 22.08%)

AWARDS

Presidential Young Fellow, The Chinese University of Hong Kong, Shenzhen — Nov 2025

Top 2% Scientists in 2024, Departments of METRICS, Stanford University/Elsevier [link] — Sep 2025

Distinguished Graduate Student Award for Excellence in Research, Association of Former Students of Texas A&M University (9 awardees) [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

CIoTSC'25, Multimodal World Models for Embodied Robotics and Autonomous Driving Workshop, Suzhou [link] Oct 2025

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

Reviewer in 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, Nature Computational Science'25