Hanchen Wang 王瀚宸

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Postdoctoral Scholar, Genentech & Stanford University

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I. Education and Training

2023 - 2026	**Postdoctoral Training**, Genentech and Stanford University. Advisors: Aviv Regev and Jure Leskovec. Research: cellular and tissue biology; agents; cancer therapeutics.
2019 - 2022	**Ph.D.**, Computer Science, University of Cambridge, Cambridge, UK. Advisor: Joan Lasenby. Research: pre-training; distributed systems; graph learning on molecules.
2014 - 2018	**B.S.**, Physics (Honors Program and Gifted Young Program), Nanjing University, Nanjing, China. Advisor: Xinran Wang. Research: protein-folding dynamics; solid-state physics.

II. Work Experience

2022	**Research Intern**, **Iambic Therapeutics**, La Jolla, CA (w/ Matt Welborn) Small molecule drug discovery (pre-training, property prediction, generation)
2022	**Research Intern**, **BioMap**, Beijing, China (w/ Le Song) Graph learning on small molecules
2021	**Research Intern**, **Amazon**, London, UK (w/ Emine Yilmaz) Graph relationship modelling
2020	**Software Engineering Intern**, **Google Research**, Mountain View, CA (w/ AR-VR team) 3D vision
2018	**Co-founder and CTO**, **Cantab Care**, UK / China Language models on EHR data, partnered with 37 hospitals
2018	**Analyst**, **China International Capital Corporation**, Shanghai, China (w/ Haiyang Zheng) Equity research
2017	**Winter Student**, **Minji University**, Tokyo, Japan Japanese and culture learning
2016	**Research Assistant and Exchange Student**, **UC Berkeley**, Berkeley, CA (w/ Ali Javey) Solid-state physics and material engineering

III. Honors and Awards

2026	Best paper, Helmholtz Computational Health Center
2026	Data Science Team of the Year, Pistoia Alliance

2025	Gemini Academic Program, Google
2024	Researcher Access Program, OpenAI
2022	Travel Award, IEEE ICASSP
2021	Travel Award, Cambridge Philosophical Society
2019	Travel Award, NeurIPS
2018	Cambridge Trust Fellowship, University of Cambridge
2018	Kathy Xu Fellowship, Capital Today Group
2018	Summa Cum Laude; Commencement Speaker, Nanjing University
2017	Meritorious Winner, International Mathematical Contest in Modeling
2015	National Level-3 Athlete, 400m Track & Field
2013	Second Prize, National Physics Olympiad
2013	Second Prize, National Biology Olympiad

IV. Publications

Google scholar, * Equal contribution, # Correspondence, Representative work, Media coverage

Preprints

31. Chang Ma*, Linh Trinh*, Matthew Bucci, Aviv Regev#, and **Hanchen Wang**#, "Orion: Towards Lab Automation with Computer-Using Agents," *bioRxiv* (2026).
30. Abbas Nazir*, **Hanchen Wang***, Ziyu Lu*, ..., Levi A. Garraway#, Aviv Regev#, "Spatiotemporal Profiling Reveals the Role of Inflammatory Niche in Driving Prostate Cancer," *under review at Science* (2026).
29. Kejun Ying*, Alexander Tyshkovskiy*, Alibek Moldakozhayev*, **Hanchen Wang***, ..., Aviv Regev, Jure Leskovec, Tony Wyss-Coray, and Vadim N. Gladyshev#, "Autonomous AI Agents Discover Aging Interventions from Millions of Molecular Profiles," *under review at Nature* (2025).
    Media: MIT Technology Review
28. Tianyu Liu*, Simeng Han*, **Hanchen Wang***#, ..., James Zou, and Hongyu Zhao#, "Towards an AI RA for Expert-Involved Learning," *under review at Communications AI & Computing* (2025).
27. Shuvom Sadhuka, Drew Prinster, Clara Fannjiang, ..., Bonnie Berger, Aviv Regev, **Hanchen Wang**#, "E-valuator: Reliable Agent Verifiers with Sequential Hypothesis Testing," *under review at NeurIPS* (2025).
26. **Hanchen Wang***#, Yichun He*, Paula P. Coelho*, Matthew Bucci*, Abbas Nazir*, ..., Jure Leskovec, Aviv Regev#, "SpatialAgent: An Autonomous AI Agent for Spatial Biology," *under review at Nature* (2025).
    Media: C&EN

Peer-reviewed

25. Kexin Huang*#, Serena Zhang*, **Hanchen Wang***, Yuanhao Qu*, Yingzhou Lu*, Ryan Li*, ..., Le Cong, Aviv Regev, and Jure Leskovec#, "Autonomous biomedical research with an AI agent," *Science* (2026).
    Media: Nature Methods · Amazon Web Services · Anthropic · Stanford Engineering

24. Fang Wu, ..., Jure Leskovec#, and Yejin Choi#, "Proteo-R1: Thinking Foundation Models for De Novo Antibody Design," *ICML* (2026).
23. Nikita Makarov, ..., and Michael P. Menden#, "TwinWeaver: An LLM-Based Foundation Model Framework for Pan-Cancer Digital Twins," *ICML* (2026).
22. Minsheng Hao*, Yongju Lee*, **Hanchen Wang**, Gabriella Scalia, and Aviv Regev#, "PerTurboAgent: A Self-Planning Agent for Boosting Sequential Perturb-seq Experiments," *MLCB* (2025).
21. Namkyeong Lee, ..., and Chanyoung Park#, "3D Interaction Geometric Pre-training for Molecular Relational Learning," *NeurIPS (Spotlight)* (2025).
20. Chenyu Wang*, Masatoshi Uehara*, ..., Tommi Jaakkola#, Sergey Levine#, **Hanchen Wang**#, and Aviv Regev#, "Fine-Tuning Discrete Diffusion Models via Reward Optimization with Applications to DNA and Protein Design," *ICLR* (2025).
19. Tianyu Liu*, Edward De Brouwer*, ..., Aviv Regev#, and Graham Heimberg#, "Learning Multi-cellular Representations of scRNA Data Enables Characterization of Patient-Level Disease States," *RECOMB (Oral)* (2025)*; also Cell Systems* (2026).
18. **Hanchen Wang**, Jure Leskovec#, and Aviv Regev#, "Limitations of Cell Embedding Metrics Assessed Using Drifting Islands," *Nature Biotechnology* (2025).
    Media: Nature Biotechnology
17. Karin Hrovatin*, Lisa Sikkema*, ..., Fabian Theis#, and Malte Luecken#, "Considerations for Building and Using Integrated Single-Cell Atlases," *Nature Methods* (2024).
16. **Hanchen Wang***, Tianfan Fu*, Yuanqi Du*, Wenhao Gao, Kexin Huang, Ziming Liu ..., Connor Coley, Yoshua Bengio, and Marinka Zitnik#, "Scientific Discovery in the Age of AI," *Nature* (2023).
    Media: The Economist · Nature · Google DeepMind · Dædalus (American Academy of Arts & Sciences)
15. Jiefeng Gan, **Hanchen Wang***, Hui Yu*, ..., Guoping Wang, and Tian Xia#, "Focalizing Regions of Biomarker Relevance Facilitates Biomarker Prediction on Histopathological Images," *iScience* (2023).
14. **Hanchen Wang***, Jean Kaddour*, Shengchao Liu, Jian Tang, Joan Lasenby, and Qi Liu, "Evaluating Self-Supervised Learning for Molecular Graph Embeddings," *NeurIPS* (2023).
13. Dingmin Wang, ..., Qi Liu, "Augmenting Message Passing by Retrieving Similar Graphs," *ECAI* (2023).
12. **Hanchen Wang*** and M. N.*, "Matching Point Sets with Quantum Circuit Learning," *ICASSP* (2022).
11. Shengchao Liu, **Hanchen Wang**, Weiyang Liu, Joan Lasenby, Hongyu Guo, and Jian Tang, "Pre-training Molecular Graph Representation with 3D Geometry," *ICLR* (2022).
10. Xiang Bai*, **Hanchen Wang***, Liya Ma*, Yongchao Xu*, Jiefeng Gan*, ..., Chuansheng Zheng, Jianming Wang, Zhen Li, Carola-Bibiane Schönlieb#, and Tian Xia#, "Advancing COVID-19 Diagnosis with Privacy-Preserving Collaborations in AI," *Nature Machine Intelligence* (2021).
    Media: University of Cambridge · Healthcare in Europe · Stanford HAI
9. **Hanchen Wang**, Qi Liu, Xiangyu Yue, Joan Lasenby, and Matthew J. Kusner, "Unsupervised Point Cloud Pre-training via Occlusion Completion," *ICCV* (2021).

8. Weiyang Liu*, Zhen Liu*, **Hanchen Wang***, Liam Paull, Bernhard Schölkopf, and Adrian Weller, "Iterative Teaching by Label Synthesis," *NeurIPS (Spotlight)* (2021).
7. James Bullock, …, and Ali Javey, "Dopant-Free Partial Rear Contacts Enabling 23% Silicon Solar Cells," *Advanced Energy Materials* (2019).
6. **Hanchen Wang**, Nina Grgić-Hlača, Preethi Lahoti, Krishna P. Gummadi, and Adrian Weller, "An Empirical Study on Learning Fairness Metrics for COMPAS Data with Human Supervision," *NeurIPS* (2019) *Workshop on Human-Centered Machine Learning*.
5. James Bullock, …, and Ali Javey, "Stable Dopant-Free Asymmetric Heterocontact Silicon Solar Cells with Efficiencies Above 20%," *ACS Energy Letters* (2018).
4. James Bullock, Hiroki Ota, **Hanchen Wang**, …, and Ali Javey, "Microchannel Contacting of Crystalline Silicon Solar Cells," *Scientific Reports* (2017).
3. Weisheng Li*, Jian Zhou*, **Hanchen Wang***, …, Yi Shi, and Xinran Wang, "Logical Integration Device for Two-Dimensional Semiconductor Transition Metal Sulfide," *Acta Physica Sinica* (2017).
2. Dongbo Zhao, …, and Shuhua Li, "Molecular Mechanism of Self-Assembly of Aromatic Oligoamides into Interlocked Double-Helix Foldamers," *Journal of Physical Chemistry B* (2017).
1. Zhihao Yu*, **Hanchen Wang***, Weisheng Li, …, and Xinran Wang, "Negative-Capacitance 2D MoS2 Transistors with sub-60 mV/dec Subthreshold Swing over 6 Orders, 250 μA/μm Current Density, and Nearly Hysteresis-Free," *IEDM (Oral)* (2017).

V. Research Funding

Contributed to Leskovec's proposals for the NSF AI Institute (awarded $400K, 2023), the Stanford HAI Hoffman-Yee Award (awarded $1.8M, 2024-2025), and the Gates Foundation (awarded $4.2M, 2026).

2025	Google Cloud Credits ($30K), PI
2024	Genentech Fund ($150K/year for computation and $250K/year for hiring, 2 years), PI
2024	OpenAI API Credits ($10K), PI
2020	Cambridge CAPE Student Grant (£2K), PI

VI. Invited Talks

2026	National Library of Medicine, NIH (hosted by Richard Scheuermann)
2026	ISMB and ICBO (hosted by David Osumi-Sutherland)
2026	Google DeepMind (hosted by Shekoofeh Azizi)
2026	Leica Spatial Biology Symposium (hosted by Andrea Radtke)
2025	Cold Spring Harbor Laboratory
2025	Broad Institute of MIT and Harvard (hosted by Caroline Uhler)
2025	Stanford Graph Learning Workshop (hosted by Jure Leskovec)
2025	Weill Cornell Medicine (hosted by Chengxi Zang and Fei Wang)

2025	Agentic AI Summit, UC Berkeley
2025	Stanford University (hosted by Ruijiang Li)
2025	University of Pennsylvania (hosted by Zhi Huang)
2025	Danaher Corporation (hosted by Luciano A. Guerreiro)
2025	University of California, Los Angeles (hosted by Yizhou Sun)
2025	Roche (hosted by Alberto Valdeolivas Urbelz)
2025	Nature Publishing Group (hosted by Qian Cheng)
2025	10x Genomics (hosted by Roger Zhu and Dylan Webster)
2025	National Cancer Institute, NIH (hosted by Eytan Ruppin)
2025	Harvard University and GESTALT (hosted by Ioannis Vlachos and Jiwoon Park)
2025	AAAI Spring Symposium
2024	Yale University (hosted by Hongyu Zhao)
2024	Princeton University (hosted by Mengdi Wang)
2023	Stanford University (hosted by Jure Leskovec)
2023	Tsinghua University (hosted by Ji Wu)
2023	Westlake University (hosted by Tailin Wu)
2023	Cambridge Machine Learning Group (hosted by José Miguel Hernández-Lobato)
2023	Wellcome Sanger Institute; EMBL-EBI (hosted by John Marioni)
2022	Genentech (hosted by Aviv Regev)
2022	Lennard-Jones Centre, University of Cambridge (hosted by Stephen Cox)
2022	ML/NLP Seminar, University of Oxford (hosted by Phil Blunsom)
2021	Amazon Machine Learning Conference
2021	Amazon-UCL Seminar (hosted by Emine Yilmaz)
2018	Awardee Representative Speech, Kathy Xu Scholarship Award Ceremony
2018	Commencement Speech, Kuang Yaming Honors School, Nanjing University

VII. Teaching

2024	Guest Lecturer, Stanford BIO 114 (Building Up Developing Scientists). Topic: biomedical discovery with AI agents.
2021	Teaching Assistant, University of Cambridge 3F8 (Statistical Inference). Linear estimation, stochastic processes, auto-regression, Kalman filtering.
2019	Teaching Assistant, University of Cambridge 3F3 (Statistical Signal Processing). Bayesian inference, Monte Carlo methods, Markov models.

2019	Demonstrator, University of Cambridge (Lab on Spectrum Analysis). Fourier transforms, power spectra, harmonics.

VIII. Mentorship

2026	**Harrison Zhang,** MD-PhD, Stanford University Topic: Lab automation.
2025	**Jordan Rossen,** PhD in Genetics, Harvard University Topic: Sequence-to-function models for personal traits prediction.
2025	**Namkyeong Lee,** PhD in Industrial and Systems Engineering, KAIST Topic: Reasoning capability of LLM agents on perturbation design. Now: full-time at Genentech.
2025	**Sessen Iohannes,** PhD in Biology, Cold Spring Harbor Laboratory Topic: Tracking and prediction for live-cell videos. Now: continuing PhD.
2025	**Chang Ma,** PhD in CS, University of Hong Kong Topic: Computer-use and coding agents for cell imaging. Now: postdoc at UW and Ai2.
2025	**Ziyu Lu,** PhD in Computational Biology, Rockefeller University Topic: Spatiotemporal dynamics in prostate cancer. Now: full-time equity trader.
2025	**Shuvom Sadhuka,** PhD in EECS, MIT CSAIL Topic: Reliable agent verifiers with sequential hypothesis testing. Now: continuing PhD.
2025	**Serena Zhang,** BS & MS in CS, Stanford University Topic: A general-purpose biomedical AI agent. Now: full-time at Phylo.
2024	**Minsheng Hao,** PhD in Automation, Tsinghua University Topic: An AI agent for iterative perturb-seq design. Now: full-time at Tencent Hunyuan.
2024	**Yichun He,** PhD in Bioengineering, Harvard University Topic: An autonomous AI agent for spatial biology. Now: Assistant Professor at UIUC.
2024	**Chenyu (Monica) Wang,** PhD in EECS, MIT CSAIL Topic: Discrete diffusion models for DNA and protein design. Now: full-time at Google DeepMind.
2023	**Nikil Ravi,** MS in CS, Stanford University Topic: Science graph benchmark. Now: full-time at vals.ai.

IX. Academic Service

Area Chair

2026	NeurIPS
2026	ICLR

Committee and Program Membership

2025	Grant-Writing Program, Chan Zuckerberg Initiative
2025	Trainee-to-Tenure-Track Program, UCSF Gladstone Institutes
2024 - 2026	Pipeline Club, Genentech
2024	Faculty Applicant Bootcamp, Chan Zuckerberg Initiative
2023 - 2024	Virtual Cell Team and AI Resident, Chan Zuckerberg Initiative
2022 - 2026	Data Integration Team, Human Cell Atlas

Workshop and Symposium Organizer

2025	AI Agents and Scientific Discovery Symposium, AAAI
2023	ML for Material Discovery, ICLR
2021 - 2022	AI for Science (1st - 3rd), NeurIPS 2021, ICML 2022, NeurIPS 2022

Reviewer

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OpenReview	Hanchen_Wang1
Conferences	AAAI, AISTATS, CVPR, ICLR, ICML, ISMB, KDD, ML4H, NeurIPS, *etc*.
Journals	Cell Genomics, Genome Biology, Harvard Data Science Review, Nature, Nature Biotechnology, Nature Communications, Nature Machine Intelligence, Nature Methods, Science, TPAMI, TMLR, *etc*.
Funding	NSF TIE Sector (2025).

X. Outreach

2025	Mentor, UC Davis "Becoming a Latino Scientist" Program. Delivered a seminar and joined campus visits; shared pathways into research and industry; emphasized open science through reproducible workflows, version-controlled code, and preprints; advised on projects, internships, and graduate applications.
2024	Volunteer, San Francisco State University Data Science and ML Certificate. Led biweekly sessions and office hours on practical ML pipelines for biomedicine; gave feedback on assignments and capstones; coached job-search strategy and interviews.

XI. References

Thanks for reading this far. I'm always open to discussing exceptional faculty opportunities.

Aviv Regev	Head of Research & Early Development (gRED), Executive Vice President of Genentech regev.aviv@gene.com
Jure Leskovec	Sequoia Professor of CS, Department of Computer Science, Stanford University jure@cs.stanford.edu
Joan Lasenby	Professor of Signal Analysis, Department of Engineering, University of Cambridge jl@eng.cam.ac.uk
Le Cong	Associate Professor of Pathology, Department of Pathology, Stanford University congle@stanford.edu
Shuvom Sadhuka	PhD Student, CSAIL, Department of EECS, Massachusetts Institute of Technology ssadhuka@mit.edu