



## HANCHEN WANG 王瀚宸 | [Homepage](#) | [Twitter](#)

**Genentech** and **Stanford University**, Joint Postdoc, with **Prof. Aviv Regev** & **Prof. Jure Leskovec** '23 – '26, Bay Area, US  
Research Interest: Single-cell genomics, genome editing, novel therapeutics, synthetic biology, and AI for Science

### EDUCATION

**The University of Cambridge** Ph.D. Machine Learning, with **Prof. Joan Lasenby** '19 - '22, Cambridge, UK  
**Nanjing University** B.Sc. Physics (GPA 3.88/4.00), admitted at age 15, Valedictorian '14 - '18, Nanjing, China  
**Suzhou High** 2<sup>nd</sup> Prizes in Biology and Physics Olympiads, obtained after college admission '12 - '14, Suzhou, China

### ACADEMIC SERVICES [\[More\]](#) >

#### Teaching Assistant, Demonstrator, and Grader, all at Cambridge

Statistical Inference ('20, '21), Lab: Spectrum Analysis ('20), Statistical Signal Processing ('19, '20)

#### Reviewer:

**Workshop Event Proposal:** NeurIPS and ICML; **Conference and Workshop Paper:** ICLR, ICML, NeurIPS, CVPR, KDD, AAAI, etc.; **Journal:** Nature Machine Intelligence, Nature Electronic, TPAMI, IJCNN, Pattern Recognition, etc

#### Co-organizer:

Workshops on "AI for Science" @ NeurIPS 2021 & 2022, ICML 2022, Workshop on "ML for Materials" @ ICLR 2023

### ACADEMIC REFERENCES (TENTATIVE) in Alphabetical Order

Anima Anandkumar (Caltech, CS & Math), Yoshua Bengio (MILA, CS), Joan Lasenby (Cambridge, CS), Jure Leskovec (Stanford, CS), Aviv Regev (Genentech, MIT Biology), Marinka Zitnik (Harvard, Bioinformatics)

### SELECTED PUBLICATIONS [\[Full List\]](#) >

- [REVIEW] "Enabling Scientific Discovery with Artificial Intelligence," Hanchen Wang et al, **Nature**
- [COMMENT] "Open Problems in Federated Digital Health", Hanchen Wang & James Zou, **Nature Machine Intelligence**
- [ARTICLE] "Advancing COVID-19 Diagnosis with Privacy-Preserving Collaboration in Artificial Intelligence", Prof. Xiang Bai\*, Hanchen Wang\*, Liya Ma\*, Yongchao Xu\*, Jiefeng Gan\* et al., **Nature Machine Intelligence 2021**
- [ARTICLE] "Unsupervised Point Cloud Pre-training via Occlusion Completion", Hanchen Wang et al, **ICCV 2021**
- [ARTICLE] "Evaluating Self-supervised Learning for Molecular Graph Embeddings", Hanchen Wang et al, arXiv 2022
- [ARTICLE] "Demystifying Batch Effect in scRNA-seq Integration via Concept Modelling", Hanchen Wang et al., in prep
- TBD**
- TBD**
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### PAST EXPERIENCE (SELECTED)

**Caltech and Entos** La Jolla & Pasadena, US. '22

Visiting Ph.D. and Intern, with **Prof. Anima Anandkumar** and **Dr. Matt Welborn**

**Amazon AI** London, UK. '21

Applied Scientist Intern, Alexa Sector, with **Prof. Emine Yilmaz** and **Jordan Massiah**

**Cantab Care** Cambridge, UK. '19

Co-Founder, CTO

**China International Capital Corporation** Shanghai, CN. '18

Quantitative Researcher Intern, Asset Management Sector, with Executive Director **Dr. Haiyang Zheng**

**Nanjing University, UC Berkeley and Lawrence Berkeley National Lab** Nanjing, CN & Berkeley, US. '16 - '18

Research Assistant on Electronic & Photovoltaic Devices, with **Prof. Xinran Wang** and **Prof. Ali Javey**

**Stanford University** Palo Alto, US. '16

Research Assistant on Compressed Neural Network, with **Dr. Jiantao Jiao** (now Berkeley EECS Prof)

### MISCELLANEOUS

3<sup>rd</sup> level **National Athlete** in 400-metre; 10<sup>th</sup> level of Erhu (musical instrument) since 9 years old



王瀚宸 个人主页 | 现居旧金山湾区 | 专注 AI for Science 交叉学科

基因泰克早期研发部门、斯坦福大学计算机系 2023 - 2026 硅谷  
博士后研究员, 导师: **Aviv Regev 院士**、**Jure Leskovec 教授**  
研究兴趣: 将人工智能、机器学习等技术应用在单细胞基因测序、免疫疗法、合成生物学、基因编辑等领域

## 教育背景

剑桥大学信息工程系 2019 - 2022 剑桥  
机器学习博士, 研究方向: 弱监督下的几何表示学习, 导师: **Joan Lasenby 教授(三一学院)**  
• 收到剑桥大学海外基金会, **徐新(今日资本)**, 剑桥大学先进光电中心, 剑桥哲学学会等资助

南京大学匡亚明学院 2014 - 2018 南京  
物理学士(GPA: 3.88/4.00), 毕业时作为学生代表发言  
• 在加州大学伯克利分校物理系、电子与计算机系以及日本明治大学日语系进行学期交换学习

苏州中学 高中奥林匹克竞赛物理学二等奖和生物学二等奖(在 15 岁保送本科之后) 2012 - 2014 苏州

## 代表论文 [全部论文列表]>

- [综述] "Enabling Scientific Discovery with Artificial Intelligence," Hanchen Wang et al., **Nature**
- [评论] "Open Problems in Federated Digital Health," Hanchen Wang & James Zou, **Nature Machine Intelligence**
- [文章] "Advancing COVID-19 Diagnosis with Privacy-Preserving Collaboration in Artificial Intelligence," Prof. Xiang Bai\*, Hanchen Wang\*, Liya Ma\*, Yongchao Xu\*, Jiefeng Gan\* et al., **Nature Machine Intelligence 2021**
- [文章] "Unsupervised Point Cloud Pre-training via Occlusion Completion," Hanchen Wang et al., **ICCV 2021**
- [文章] "Evaluating Self-supervised Learning for Molecular Graph Embeddings," Hanchen Wang et al., arXiv 2022
- [文章] "Demystifying Batch Effect in scRNA-seq Integration via Concept Bottleneck," Hanchen Wang et al., in prep
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## 学术推荐人 (拟) 依据姓氏首字母排序

Anima Anandkumar (Caltech, CS & Math), Yoshua Bengio (MILA, CS), Joan Lasenby (Cambridge, CS), Jure Leskovec (Stanford, CS), Aviv Regev (Genentech, MIT Biology), Marinka Zitnik (Harvard, BioInfo & CS)

## 过往经历 (部分)

加州理工学院数学与计算机系、初创制药公司 **Entos** 2022 加州  
联培博士生、实习生, 与 **Anima Anandkumar 教授**、**Matt Wellborn 博士**等合作, 方向: 计算化学、计算基因组学

Amazon AI, Alexa 部门 2021 伦敦  
实习生, 与 **Emine Yilmaz 教授**、**Jordan Massiah** 合作, 方向: 基于图模型的编辑算法

初创制药公司 **Cantab Care** 2019 剑桥  
联合创始人, 首席技术官, 方向: 医疗 SaaS 系统

中金公司资管自营部门 2018 上海  
实习生, 由执行董事**郑海洋博士**直接指导, 方向: 量化策略开发

南京大学电子系、加州大学伯克利分校电子与计算机系、**劳伦斯国家实验室** 2016 - 2018 南京和伯克利  
研究助理, 与王欣然和 Ali Javey 两位教授合作, 方向: 微电子器件和太阳能电池

斯坦福大学电子工程系 2016 硅谷  
研究助理, 与**焦建涛博士**合作(现为 UC Berkeley 教授), 方向: 神经网络压缩

## 其它 [更多]>

400 米田径国家三级运动员; 担任 Nature Machine Intelligence, PAMI, NeurIPS, ICML, ICLR 等期刊和会议的审稿人; 在 NeurIPS, ICML 上组织 AI for Science 研讨会; 在 ICLR 上组织 ML for Materials 研讨会; 曾任剑桥大学算法交易协会副主席; 九岁二胡十级; 在剑桥大学信息工程系和加州理工学院数学与计算机系担任助教; 真格基金 Fellow