Last updated: Oct 2022

Boxiang Liu, Ph.D.

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Education

Doctor of Philosophy, Biology (Bioinformatics) Sept 2013 – Jan 2019
Stanford University, CA, USA
Advisors: Stephen Montgomery and Thomas Quertermous
Thesis committee: Jonathan Pritchard and Jin Billy Li
Thesis: *Fine-mapping and annotation of disease-associated variants in specialized cell types*

Master of Science, Statistics Feb 2015 – June 2017
Stanford University, CA, USA

Bachelor of Arts, Biophysics, *summa cum laude* Aug 2010 – June 2013
Illinois Wesleyan University, IL, USA
Advisors: Gabriel Spalding and Thushara Perera
Thesis: *Graphical introduction to special relativity based on Minkowski diagrams*

Professional Experience

Assistant Professor July 2022 – Present
Departments of Pharmacy & Biomedical Informatics
National University of Singapore, Singapore

Staff Research Scientist (research lead) April 2021 – July 2022
Baidu Research Institute, CA, USA
Biocomputing & Natural Language Processing group, Institute of Deep Learning

Senior Research Scientist Mar 2019 – April 2021
Baidu Research Institute, CA, USA
Biocomputing & Natural Language Processing group, Institute of Deep Learning

Graduate Student Sept 2013 – Jan 2019
Stanford University School of Medicine, CA, USA
Professor Stephen B. Montgomery Laboratory

Undergraduate Research Assistant June 2013 – Sept 2013
Department of Biomedical Engineering
University of Wisconsin – Madison, WI, USA
Professor Kevin Eliceiri Laboratory

Undergraduate Research Assistant May 2012 – Aug 2012
Department of Mechanical Engineering
Northwestern University, IL, USA
Professor Cheng Sun Laboratory

Undergraduate Research Assistant May 2011 – Aug 2011
Department of Biological and Environmental Engineering
Cornell University, NY, USA
Professor Dan Luo Laboratory

Last updated: Oct 2022

Highlight Publications ([1]=joint first authors, *=corresponding author)

1. **Boxiang Liu**[1]*, Michael J. Gloudemans[1], Abhiram S. Rao, Erik Ingelsson, and Stephen B. Montgomery*. (2019). Abundant associations with gene expression complicate GWAS follow-up. *Nature Genetics*. (IF = 38.33) [paper]
2. **Boxiang Liu**, Milos Pjanic, Ting Wang, Trieu Nguyen, Michael Gloudemans, Abhiram Rao, Victor G. Castano, Sylvia Nurnberg, Daniel J Rader, Susannah Elwyn, Erik Ingelsson, Stephen B Montgomery, Clint L Miller, Thomas Quertermous. (2018). Genetic regulatory mechanisms of smooth muscle cells map to coronary artery disease risk loci. *American Journal of Human Genetics*. (IF = 11.025) [paper]
3. **Boxiang Liu**[1], Melissa A. Calton[1], Nathan S. Abell, Gillie Benchorin, Michael J. Gloudemans, Ming Chen, Jane Hu, Xin Li, Brunilda Balliu, Dean Bok, Stephen B. Montgomery, Douglas Vollrath. (2019). Genetic analyses of human fetal retinal pigment epithelium gene expression suggest ocular disease mechanisms. *Communications Biology*. (IF = 6.268) [paper]
4. Li, Yingmei[1], **Boxiang Liu**[1], Ian David Connolly[1], Bina Wasunga Kakusa, Wenying Pan, Seema Nagpal, Stephen B. Montgomery, and Melanie Hayden Gephart. (2018). Recurrently mutated genes differ between leptomeningeal and solid lung cancer brain metastases. *Journal of Thoracic Oncology*. (IF = 15.609) [paper]
5. **Boxiang Liu**[1]*, Kaibo Liu[1], He Zhang, Liang Zhang, Yuchen Bian, and Liang Huang. (2020). CoV-Seq, a new tool for SARS-CoV-2 genome analysis and visualization: Development and usability study. *Journal of medical Internet Research* (IF= 5.43) [paper]
6. **Boxiang Liu***, and Stephen B. Montgomery*. (2020). Identifying causal variants and genes using functional genomics in specialized cell types and contexts. *Human Genetics* (IF = 5.331) [paper]
7. **Boxiang Liu**[1]*, Yanjun Li[1], Liang Zhang. (2022). Analysis and Visualization of Spatial Transcriptomic Data. *Frontiers in Genetics* (IF = 4.6) [paper]
8. **Boxiang Liu***, and Thomas Quertermous. (2017). Approximating the sum of independent non-identical binomial random variables. *R Journal* (IF = 3.984) [paper]
9. **Boxiang Liu***, Liang Huang. (2021). ParaMed: A Parallel Corpus for English-Chinese Translation in the Biomedical Domain. *BMC Medical Informatics and Decision Making*. (IF=3.394) [paper]
10. Md. Badsha Bahadur[1], Rui Li[1], **Boxiang Liu**[1], Yang I. Li, Min Xian, Nicholas E. Banovich, and Audrey Qiuyan Fu. (2020). Imputation of single-cell gene expression with an autoencoder neural network. *Quantitative Biology* (IF = 1.161) [paper]
11. **Boxiang Liu**, Nadine Hussami, Avanti Shrikumar, Tyler Shimko, Salil Bhate, Scott Longwell, Stephen Montgomery, and Anshul Kundaje. (2017) A multi-modal neural network for learning cis and trans regulation of stress response in yeast. *NeurIPS Machine Learning in Computational Biology Workshop* [paper] Note: Computer Science venues do not have IF.

All Peer-Reviewed Publications ([1] = joint first authors, *= corresponding author)

Publication list also available at
https://scholar.google.com/citations?user=FWcKOFMAAAAJ&hl=en.

Last updated: Oct 2022

1. **Boxiang Liu**[1]*, Yanjun Li[1], Liang Zhang. (2022). Analysis and Visualization of Spatial Transcriptomic Data. *Frontiers in Genetics* [paper]
2. Yunpeng Huang, Zhihui Wan, Yinglu Tang, Junxuan Xu, Bretton Laboret, Sree Nallamothu, Chenyu Yang, **Boxiang Liu**, Rongze Olivia Lu, Bingwei Lu, Juan Feng, Jing Cao, Susan Hayflick, Bing Zhou, Zhihao Wu. (2022). Pantothenate Kinase 2 Intertwines with PINK1 and Regulates Mitochondrial Quality Control.
3. Sizhen Li, He Zhang, Liang Zhang, Kaibo Liu, **Boxiang Liu**, David H. Mathews, Liang Huang (2021). LinearTurboFold: Linear-Time RNA Structural Alignment and Conserved Structure Prediction with Applications to Coronaviruses. *Proceedings of the National Academy of Sciences*. [paper]
4. Xingyu Cai, Yuchen Bian, Jiaji Huang, **Boxiang Liu**, Jiahong Yuan, Kenneth Church. (2021 SSPF: a Simple and Scalable Parameter Free Clustering Method. *International Conference on Data Mining Workshops* [paper]
5. Kenneth Church and **Boxiang Liu.** (2021). Multiword Expressions, Acronyms and Opportunities for Improving Deep Nets. *Frontiers in Artificial Intelligence*. [paper]
6. Yingmei Li, Dina Polyak, Layton Lamsam, Ian David Connolly, Eli Johnson, Lina Khav Khoeur, Stephanie Andersen, Monica Granucci, Geoff Stanley, **Boxiang Liu**, Seema Nagpal, Melanie Hayden Gephart. (2021). Comprehensive RNA analysis of CSF reveals a role for CEACAM6 in lung cancer leptomeningeal metastases. *npj Precision Oncology*. [paper]
7. Alvaro N Barbeira, Rodrigo Bonazzola, Eric R Gamazon, Yanyu Liang, YoSon Park, Sarah Kim-Hellmuth, Gao Wang, Zhuoxun Jiang, Dan Zhou, Farhad Hormozdiari, **Boxiang Liu**, Abhiram Rao, Andrew R Hamel, Milton D Pividori, François Aguet, Lisa Bastarache, Daniel M Jordan, Marie Verbanck, Ron Do, Matthew Stephens, Kristin Ardlie, Mark McCarthy, Stephen B Montgomery, Ayellet Segré, Christopher D Brown, Tuuli Lappalainen, Xiaoquan Wen, Hae Kyung Im, GTEx GWAS Working Group, GTEx Consortium. (2020). Exploiting the GTEx resources to decipher the mechanisms at GWAS loci. *Genome Biology*. [paper]
8. **Boxiang Liu**, Liang Huang. (2021). ParaMed: A Parallel Corpus for English-Chinese Translation in the Biomedical Domain. *BMC Medical Informatics and Decision Making*. [paper]
9. **Boxiang Liu**, Kaibo Liu, He Zhang, Liang Zhang, Yuchen Bian, Liang Huang. (2020). CoV-Seq, a New Tool for SARS-CoV-2 Genome Analysis and Visualization: Development and Usability Study. *Journal of Medical Internet Research.* [paper]
10. Quanyi Zhao, Michael Dacre, Trieu Nguyen, Milos Pjanic, **Boxiang Liu**, Dharini Iyer, Paul Cheng, Robert Wirka, Juyong Brian Kim, Hunter B Fraser, Thomas Quertermous (2020). Molecular mechanisms of coronary disease revealed using quantitative trait loci for TCF21 binding, chromatin accessibility, and chromosomal looping. *Genome Biology*. [paper]
11. M Ryan Corces, Anna Shcherbina, Soumya Kundu, Michael J Gloudemans, Laure Frésard, Jeffrey M Granja, Bryan H Louie, Tiffany Eulalio, Shadi Shams, S Tansu Bagdatli, Maxwell R Mumbach, **Boxiang Liu**, Kathleen S Montine, William J Greenleaf, Anshul Kundaje, Stephen B Montgomery, Howard Y Chang, Thomas J Montine. (2020). Single-cell epigenomic analyses implicate candidate causal variants at inherited risk loci for Alzheimer's and Parkinson's diseases. *Nature Genetics*. [paper]

12. Md Bahadur Badsha[1], Rui Li[1], **Boxiang Liu[1]**, Yang I Li, Min Xian, Nicholas E Banovich, Audrey Qiuyan Fu. (2020). Imputation of single-cell gene expression with an autoencoder neural network. *Quantitative Biology*. [paper]
13. Brunilda Balliu, Matthew Durrant, Olivia de Goede, Nathan Abell, Xin Li, **Boxiang Liu**, Michael J. Gloudemans, Naomi L. Cook, Kevin S. Smith, David A. Knowles, Mauro Pala, Francesco Cucca, David Schlessinger, Siddhartha Jaiswal, Chiara Sabatti, Lars Lind, Erik Ingelsson & Stephen B. Montgomery. (2019). Genetic dysregulation of gene expression and splicing during a ten-year period of human aging. *Genome Biology* [paper]
14. **Boxiang Liu***, and Stephen B. Montgomery*. Identifying causal variants and genes using functional genomics in specialized cell types and contexts. (2019). *Human Genetics*. [paper]
15. Laure Frésard, Craig Smail, Nicole M. Ferraro, Nicole A. Teran, Xin Li, Kevin S. Smith, Devon Bonner, Kristin D. Kernohan, Shruti Marwaha, Zachary Zappala, Brunilda Balliu, Joe R. Davis, **Boxiang Liu**, Cameron J. Prybol, Jennefer N. Kohler, Diane B. Zastrow, Chloe M. Reuter, Dianna G. Fisk, Megan E. Grove, Jean M. Davidson, Taila Hartley, Ruchi Joshi, Benjamin J. Strober, Sowmithri Utiramerur, Undiagnosed Diseases Network, Care4Rare Canada Consortium, Lars Lind, Erik Ingelsson, Alexis Battle, Gill Bejerano, Jonathan A. Bernstein, Euan A. Ashley, Kym M. Boycott, Jason D. Merker, Matthew T. Wheeler & Stephen B. Montgomery. (2019). Identification of rare-disease genes in diverse undiagnosed cases using whole blood transcriptome sequencing and large control cohorts. *Nature Medicine.* [paper]
16. Zhongdong Liu, **Boxiang Liu**, Gaowei Chen. (2019). Retrospective analysis of the development history of the Chinese food additive standards system based on the CODEX principles. *npj Science of Food*. [paper]
17. **Boxiang Liu**[1]*, Michael J. Gloudemans[1], Abhiram S. Rao, Erik Ingelsson, and Stephen B. Montgomery*. (2019). Abundant associations with gene expression complicate GWAS follow-up. *Nature Genetics*, 51(5), 768-769. [paper]
18. Mengfei Wan, Zhongdong Liu, Yongfu Chen, Caiyuan Lu, Kechang Li, Fahe Wang, Xiaomei Wang, **Boxiang Liu**. (2019). Preparation of pure gum raw materials-low brown algae application. *Journal of Oceanology and Limnology*. [paper]
19. Robert C. Wirka, Dhananjay Wagh, David T. Paik, Milos Pjanic, Trieu Nguyen, Clint L. Miller, Ramen Kundu, Manabu Nagao, John Coller, Tiffany K. Koyano, Robyn Fong, Y. Joseph Woo, **Boxiang Liu**, Stephen B. Montgomery, Joseph C. Wu, Kuixi Zhu, Rui Chang, Melissa Alamprese, Michelle D. Tallquist, Juyong B. Kim & Thomas Quertermous. (2019). Atheroprotective roles of smooth muscle cell phenotypic modulation and the *TCF21* disease gene as revealed by single-cell analysis. *Nature Medicine*. [paper]
20. **Boxiang Liu**[1], Melissa A. Calton[1], Nathan S. Abell, Gillie Benchorin, Michael J. Gloudemans, Ming Chen, Jane Hu, Xin Li, Brunilda Balliu, Dean Bok, Stephen B. Montgomery, Douglas Vollrath. (2019). Genetic analyses of human fetal retinal pigment epithelium gene expression suggest ocular disease mechanisms. *Communications Biology*. [paper]
21. Vivek Nanda, Ting Wang, Milos Pjanic, **Boxiang Liu**, Trieu Nguyen, Ljubica Perisic Matic, Ulf Hedin, Simon Koplev, Lijiang Ma, Oscar Franzén, Arno Ruusalepp, Eric E. Schadt, Johan L. M. Björkegren, Stephen B. Montgomery, Michael P. Snyder, Thomas Quertermous,

Nicholas J. Leeper, Clint L. Miller (2018). Functional Regulatory Mechanism of Smooth Muscle Cell-Restricted LMOD1 Coronary Artery Disease Locus. *PLOS Genetics.* [paper]

22. Bina Kakusa, Summer Han, Sonya Aggarwal, **Boxiang Liu**, Gordon Li, Scott Soltys and Melanie Hayden Gephart. (2018). Clinical Factors Associated with Mortality Within Three Months After Radiosurgery of Small, Asymptomatic Brain Metastases from Non-small Cell Lung Cancer. *Journal of Neuro-Oncology*. [paper]
23. Dharini Iyer, Quanyi Zhao, Robert Wirka, Ameay Naravane, Trieu Nguyen, **Boxiang Liu**, Manabu Nagao, Paul Cheng, Clint L. Miller, Juyong Brian Kim, Milos Pjanic, Thomas Quertermous. (2018). Coronary artery disease genes SMAD3 and TCF21 promote opposing interactive genetic programs that regulate smooth muscle cell differentiation and disease risk. *PLOS Genetics*. [paper]
24. **Boxiang Liu**, Milos Pjanic, Ting Wang, Trieu Nguyen, Michael Gloudemans, Abhiram Rao, Victor G. Castano, Sylvia Nurnberg, Daniel J Rader, Susannah Elwyn, Erik Ingelsson, Stephen B Montgomery, Clint L Miller, Thomas Quertermous. (2018). Genetic regulatory mechanisms of smooth muscle cells map to coronary artery disease risk loci. *American Journal of Human Genetics*. [paper]
25. **Boxiang Liu***, and Thomas Quertermous. (2017). Approximating the sum of independent non-identical binomial random variables. *R Journal* [paper]
26. Li, Yingmei[1], **Boxiang Liu**[1], Ian David Connolly[1], Bina Wasunga Kakusa, Wenying Pan, Seema Nagpal, Stephen B. Montgomery, and Melanie Hayden Gephart. (2018). Recurrently mutated genes differ between leptomeningeal and solid lung cancer brain metastases. *Journal of Thoracic Oncology*. [paper]
27. **Boxiang Liu**, Nadine Hussami, Avanti Shrikumar, Tyler Shimko, Salil Bhate, Scott Longwell, Stephen Montgomery, and Anshul Kundaje. (2017) A multi-modal neural network for learning cis and trans regulation of stress response in yeast. *NeurIPS Machine Learning in Computational Biology Workshop* [paper]
28. Juyong Brian Kim, Milos Pjanic, Trieu Nguyen, Clint L Miller, Dharini Iyer, **Boxiang Liu**, Ting Wang, Olga Sazonova, Ivan Carcamo-Orive, Ljubica Perisic Matic, Lars Maegdefessel, Ulf Hedin, Thomas Quertermous. (2017). TCF21 and the environmental sensor aryl-hydrocarbon receptor cooperate to activate a pro-inflammatory gene expression program in coronary artery smooth muscle cells. *PLOS Genetics*. [paper]
29. **GTEx Consortium**. (2017). Genetic effects on gene expression across human tissues. *Nature*. [paper] Note: GTEx Consortium is a multi-institutional collaboration with 200+ authors. Boxiang Liu is involved with the eQTL Manuscript Working Group and Statistical Methods Group
30. Xin Li, Yungil Kim, Emily K. Tsang, Joe R. Davis, Farhan N. Damani, Colby Chiang, Gaelen T. Hess, Zachary Zappala, Benjamin J. Strober, Alexandra J. Scott, Amy Li, Andrea Ganna, Michael C. Bassik, Jason D. Merker, **GTEx Consortium**, Ira M. Hall, Alexis Battle & Stephen B. Montgomery (2017). The impact of rare variation on gene expression across tissues. *Nature* [paper]
31. Meng How Tan, Qin Li, Raghuvaran Shanmugam, Robert Piskol, Jennefer Kohler, Amy N. Young, Kaiwen Ivy Liu, Rui Zhang, Gokul Ramaswami, Kentaro Ariyoshi, Ankita Gupte,

Liam P. Keegan, Cyril X. George, Avinash Ramu, Ni Huang, Elizabeth A. Pollina, Dena S. Leeman, Alessandra Rustighi, Y. P. Sharon Goh, **GTEx Consortium**, Ajay Chawla, Giannino Del Sal, Gary Peltz, Anne Brunet, Donald F. Conrad, Charles E. Samuel, Mary A. O'Connell, Carl R. Walkley, Kazuko Nishikura & Jin Billy Li. (2017). *Nature*. [paper]

32. Taru Tukiainen, Alexandra-Chloé Villani, Angela Yen, Manuel A. Rivas, Jamie L. Marshall, Rahul Satija, Matt Aguirre, Laura Gauthier, Mark Fleharty, Andrew Kirby, Beryl B. Cummings, Stephane E. Castel, Konrad J. Karczewski, François Aguet, Andrea Byrnes, **GTEx Consortium**, Tuuli Lappalainen, Aviv Regev, Kristin G. Ardlie, Nir Hacohen & Daniel G. MacArthur. (2017) Landscape of X chromosome inactivation across human tissues. *Nature*. [paper]
33. Halit Ongen, Andrew A Brown, Olivier Delaneau, Nikolaos I Panousis, Alexandra C Nica, **GTEx Consortium**, Emmanouil T Dermitzakis (2017). Estimating the causal tissues for complex traits and diseases. *Nature Genetics* [paper]
34. Zhihao Wu, Yan Wang, Junghyun Lim, **Boxiang Liu**, Yanping Li, Rasika Vartak, Trisha Stankiewicz, Stephen Montgomery, Bingwei Lu. (2017). Ubiquitination of ABCE1 by NOT4 in Response to Mitochondrial Damage Links Co-translational Quality Control to PINK1-Directed Mitophagy. *Cell Metabolism*. [paper]
35. Zhongdong Liu, **Boxiang Liu**, Mengxing Li, Min Wei, Hua Li, Peng Liu, Tuo Wan. (2013). Scanning probe acoustic microscopy of extruded starch materials: Direct visual evidence of starch crystal. *Carbohydrate Polymers*. [paper]
36. Zhongdong Liu, Benqian Gong, Liang Zhang, Hongjie An, **Boxiang Liu**. (2012). The influence of emulsifiers on retrogradation properties of waxy starch. *Advances in Computational Environment Science*. [paper]
37. Zhongdong Liu, Lizheng Bi, Guojin Yan, Shijie Yang, Chao Yang, **Boxiang Liu**. (2012). The Effects of Protein Content to Starch's Enzymolysis Character. *Advances in Computational Environment Science* [paper]
38. Min Wei, Yong Liu, Changxiao Ju, **Boxiang Liu**, Zhongdong Liu. (2012). Studies on the Preparation, Structure and Characteristics of Magnetic Starch. *Advances in Computational Environment Science*. [paper]
39. Zhongdong Liu, Junhui Ou, Zhaotang Zhang, Yiwei Deng, Peng Wang, **Boxiang Liu**, Jinhui Peng, Zhaotan Chen, Xiaoyun Li, Guangzong Zhou. (2011). Undulator (Pump) Mechanism of Ultraviolet Microwave Synergistic Gain and Design of Microwave-UV Ovens. *Journal of Kunming University of Science and Technology* [paper]
40. Min Wei, Yong Liu, **Boxiang Liu**, Xiaoling Lv, Pin Sun, Zesheng Zhang, Fengshou Zhang, Su Yin, Zhongdong Liu (2011). Preparation and Application of Starch Phosphate with a Low Degree of Substitution. *Phosphorus, Sulfur, and Silicon and the Related Elements.* [paper]
41. Zhongdong Liu, Benqian Gong, Yaqiang He, Zhenxing Li, **Boxiang Liu**. (2011). A new method for the non-destructive determination of fish freshness by nuclear imaging. *IEEE/ICME International Conference on Complex Medical Engineering*. [paper]
42. Hua Li, Zhong-Dong Liu, **Boxiang Liu**, Jian-Hui Chen, You-Ning Sun, Xiao-Ling Lv, Ze-Sheng Zhang, Pin Sun, Pin Zhang, Yang-Li Wang (2009). Application of the Molecular Combing Technique to Starch Granules. *Molecules.* [paper]

Publications Under Review ([1] = joint first authors, *= corresponding author)

43. He Zhang, Liang Zhang, Ang Lin, Congcong Xu, Ziyu Li, Kaibo Liu, **Boxiang Liu**, Xiaopin Ma, Fanfan Zhao, Weiguo Yao, Hangwen Li, David H. Mathews, Yujian Zhang, Liang Huang. (2022). LinearDesign: Efficient Algorithms for Optimized mRNA Sequence Design. *arXiv*. [paper]
44. Foozhan Tahmasebinia, Yinglu Tang, Rushi Tang, Songjie Chen, Yi Zhang, Maisa de Oliveira, Bretton Laboret, Bradley Dromgoole, Ruiqi Jian, Lihua Jiang, Rongze Olivia Lu, Michael Snyder, **Boxiang Liu***, Zhihao Wu*. (2022). 40S Ribosomal Subunit Recycling in Conjunction with mTORC2 Pathway Orchestrates Mitochondrial Dynamics and Quality Control at the Mitochondria-Endoplasmic Reticulum Contact Sites.

Non-Peer-Reviewed Publications ([1] = joint first authors, *= corresponding author)

45. **Boxiang Liu**, Jiaji Huang, Xingyu Cai, Kenneth Church. (2021). Better than BERT but Worse than Baseline. *arXiv* [paper]
46. **Boxiang Liu**, Suyash Shringarpure, Christopher Gignoux, Rui Zhang, Kevin S. Smith, Carlos D. Bustamante, Jin Billy Li, Douglas Vollrath, Stephen B. Montgomery. (2016). Ancestry Inference through Microfluidic Multiplex PCR and Sequencing. *Technical report*. [paper]
47. **Boxiang Liu**, Thushara Perera. (2015). A Graphical Introduction to Special Relativity Based on a Modern Approach to Minkowski Diagrams. *arXiv*. [paper]

Honors and Awards

- 2020 Baidu TPG Incentive Award - Innovative Team
- 2018 Government Award for Outstanding Self-Financed Students Abroad (500 students globally)
- 2018 Charles B. Carrington Memorial Award
- 2017 Stanford Center for Computational, Evolutionary and Human Genomics Fellowship
- 2016 Stanford OGE travel grant
- 2013 President's Club Award in Natural Science and Mathematics (1 award for ~500 students)
- Phi Kappa Phi member (inducted as college junior)
- Phi Beta Kappa member (inducted as college junior)
- Dean's List, Illinois Wesleyan University (2011 – 2013)
- Alumni Scholarship, Illinois Wesleyan University (2010 – 2013)
- 2012 Putnam Math Competition Rank II (ranked 197/4440 contestants, top 5%)
- 2011 Outstanding Physics Student Award
- 2011 Titan Leadership Fellow
- 2010 ETS TOEFL Scholarship

Teaching Experience

Teaching Assistant 2018

Graduate Course: Next Generation Sequencing and Applications
Department of Genetics, Stanford University

Teaching Assistant 2017
Graduate Course: Epigenetics
Department of Biology, Stanford University

Teaching Assistant 2014
Undergraduate Course: Molecular Biology Laboratory
Department of Biology, Stanford University (2014)

Teaching Assistant 2012
Undergraduate Course: Modern Physics
Department of Physics, Illinois Wesleyan University (2012)

Teaching Assistant 2011 – 2012
Undergraduate Course: General Physics Lab
Department of Physics, Illinois Wesleyan University (2011-2012)

Teaching Assistant 2011
Undergraduate Course: Linear Algebra
Department of Mathematics, Illinois Wesleyan University (2011)

Presentations

Human Cell Atlas, AIDA workshop, Bangkok, Thailand	2022
23andMe, Mountain View, CA, USA (Invited Speaker)	2019
Tianjin University, Tianjin, China (Invited Speaker)	2019
BioMarin Pharmaceutical Inc, San Rafael, CA, USA (Invited Speaker)	2019
T.H. Chan School of Public Health, Harvard University, Boston, MA, USA	2018
American Society of Human Genetics, San Diego, CA, USA	2018
UCSF School of Medicine, San Francisco, CA, USA	2018
University of Colorado Anshultz Medical School, Denver, CO, USA	2018
Biomedical Computation at Stanford, Palo Alto, CA, USA	2018
Neural Information Systems Processing, Long Beach, CA, USA	2017
American Society of Human Genetics Annul meeting, Vancouver, Canada	2016
American Society of Human Genetics Annul meeting, Baltimore, MD, USA	2015
JWP Undergrad Research Conference, Bloomington, IL, USA	2013
JWP Undergrad Research Conference, Bloomington, IL, USA	2012

Professional Services

Ad hoc reviewer American Journal of Human Genetics, Briefings in Bioinformatics, International Joint Conference on Artificial Intelligence (IJCAI), Machine Learning for Health (ML4H), Oncotarget, Oncology Letters, PLoS One.

Other Services	Postgraduate committee, NUS	2022 – Present
	Baidu Biomedical Reading Group	2019 – 2021
	Stanford Association of Chinese Students and Scholars	2016 – 2019
	Stanford BioAIMS	2014 – 2015
	Pi Mu Epsilon (Mathematics Honor Society)	2012 – 2013