

Lanqing Li

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Personal Profile

- I'm a senior research scientist (T10/T3.2) at [Tencent AI Lab](#), working on machine learning and its applications in drug discovery and autonomous control. Previously I worked as a tech lead at [InferVision](#), a pre-IPO medical AI startup.
- **Homepage:** <https://lanqingli1993.github.io/>
- **Research Interests:** Machine/Deep Learning, AI-Aided Drug Discovery (AIDD), Robust Machine Learning, Reinforcement Learning, AI for Science.

Employment History

Shenzhen Tencent Computer System Co., Ltd. Shenzhen, China
Senior Research Scientist, AI Lab 10/2019-Now

- Co-developed the multi-step retrosynthesis module of [iDrug](#). Independently developed a state-of-the-art model for synthetic accessibility prediction, in collaboration with [the American Chemical Society \(CAS\)](#).
- Led the research and development of the core AI algorithms and greenhouse simulator of the [iGrow](#) solution, in collaboration with [Wageningen University & Research \(WUR\)](#).
- Co-mentoring the [Tencent AI Lab Rhino-Bird Elite Training Program](#) and [Tencent AI Lab Rhino-Bird Focused Research Program](#), covering topics on deep graph learning, OOD/Long-tailed learning, retrosynthesis, graph generation for molecular de novo design and reinforcement learning.
- Submitted 20+ research papers and patent applications, 11 of which have been published at top conferences/journals.
- Mentor of 1 employee and 20+ interns at the machine learning center.

InferVision Medical Technology Co., Ltd. Beijing, China
Tech Lead & Machine Learning Engineer 03/2018-10/2019

- Led a team of 8 engineers to develop computer-aided detection (CAD) solutions like InferRead Mammo Breast and InferRead CT Coronary.

Academic History

The Chinese University of Hong Kong 08/2022-Now
Ph.D. Candidate in Computer Science and Engineering

- Supervisor: [Prof. Pheng Ann Heng](#)
- Research areas: AI for Drug Discovery, Robust Machine Learning, Reinforcement Learning

The University of Chicago 09/2015-08/2017
Master of Science (Ph.D. Program) in Physics

- Concentration: Theoretical Biophysics & Computer Vision

Massachusetts Institute of Technology 08/2012-06/2015
Bachelor of Science in Physics Major GPA: 4.7/5.0

- Advised by [Prof. Alan Guth](#), [Prof. David Kaiser](#) and [Prof. Nevin Weinberg](#).
- Concentration: Theoretical Cosmology, High Energy Physics

Imperial College London 06/2014-08/2014
Exchange Student of Summer Research Placement

Peking University 09/2011-06/2012
Candidate for a Bachelor of Science in Physics Major GPA: 3.88/4.0

Selected Publications (*: co-first author, †: corresponding author)

1. Zeng, L., **Li, L.**[†], Gao, Z., Zhao, P., Li, J. ImGCL: Revisiting Graph Contrastive Learning on Imbalanced Node Classification. AAAI 2023.
2. Han, Z., Liang, Z., Yang, F., Liu L., **Li, L.**, et al. UMIX: Improving Importance Weighting for Subpopulation Shift via Uncertainty-Aware Mixup. NeurIPS 2022.
3. Liu, S., Ying, R., Dong, H., **Li, L.**[†], Xu, T., Rong, Y., Zhao, P., Huang, J., Wu, D. *Local Augmentation for Graph Neural Networks*. ICML 2022.
4. Gao, C., Xu, K., Zhou, K., **Li, L.**, et al. *Value Penalized Q-Learning for Recommender Systems*. SIGIR 2022.
5. Cao, X., Yao Y., **Li, L.**, et al. *iGrow: A Smart Agriculture Solution to Autonomous Greenhouse Control*. AAAI 2022.
6. **Li, L.**, Yang, R., Luo, D. *FOCAL: Efficient Fully-Offline Meta-Reinforcement Learning via Distance Metric Learning and Behavior Regularization*. ICLR 2021.
7. An, Z., Cao, X., Yao, Y., Zhang, W., **Li, L.**, Wang, Y., Guo, S., and Luo, D. *A Simulator-based Planning Framework for Optimizing Autonomous Greenhouse Control Strategy*. ICAPS 2021.
8. Hertzberg, M. P., Karouby, J., Spitzer, W. G., Becerra, J. C., & **Li, L.** *A Theory of Self-Resonance After Inflation, Part 1: Adiabatic and Isocurvature Goldstone Modes*. Phys. Rev. D 90, 123528 (2014).
9. Hertzberg, M. P., Karouby, J., Spitzer, W. G., Becerra, J. C., & **Li, L.** *A Theory of Self-Resonance After Inflation, Part 2: Quantum Mechanics and Particle-Antiparticle Asymmetry*. Phys. Rev. D 90, 123529 (2014).

Selected Awards

Prize of Sustainable Social Values, Tencent	2021
SAIL Award at World Artificial Intelligence Conference - Finalist	2020
Distinguished Sachs Fellowship, UChicago	2015
Li & Fung Scholarship, MIT	2014
Jay Tsun Shaw (1946) Memorial Scholarship, MIT	2013-2015
First Prize in Young Physicists Tournaments, Peking University	2012
Mingde Scholarship, Peking University	2011
Excellent Student Scholarship, Peking University	2011
Gold Medalist of International Physics Olympiad	2011
<ul style="list-style-type: none">• Ranked 1st in Theory and 5th in Total Score• Prize of Best Score in Theory (Full Marks)	

Academic Service

Reviewer, CVPR 2023
Reviewer, NeurIPS 2022
Reviewer, ICML 2022
Reviewer, IJCAI-ECAI 2022
Reviewer, IJCAI 2021