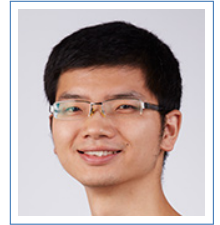


# Zhizhong Li

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Zhizhong Li is a senior researcher at SenseTime, Hong Kong. Currently he is leading a talented group to solve problems in AIGC (AI Generated Content) which helps the advertising industry.

## Education

- 2015–2019 **The Chinese University of Hong Kong, Hong Kong.**  
Ph.D. Candidate, Information Engineering. Advisor: Prof. Dahua Lin
- 2011–2015 **Peking University, Beijing, China.**  
M.S. School of Mathematical Sciences. Symplectic Geometry. Advisor: Prof. Xiaobo Liu
- 2006–2010 **Zhengzhou University, Zhengzhou, China.**  
B.S. Mathematics and Applied Mathematics  
B.A. Double Major in English

## Selected Publication

- [1] Cong Ma\*, **Zhizhong Li\***, Dahua Lin, Jianshe Zhang. Parallel Multi-Environment Shaping Algorithm for Complex Multi-step Task. **Neurocomputing** (2020). [[paper](#)] [[code](#)]
- [2] Hao Sun, **Zhizhong Li**, Xiaotong Liu, Bolei Zhou, Dahua Lin. Policy Continuation with Hindsight Inverse Dynamics. **NeurIPS** 2019.
- [3] Sijie Yan\*, **Zhizhong Li\***, Yuanjun Xiong, Huahan Yan, Dahua Lin. Convolutional Sequence Generation for Skeleton-Based Action Synthesis. **ICCV** 2019.
- [4] **Zhizhong Li**. A Stroke of Genius: Generating Images. In Xiao'ou Tang and Yukun Chen, editors, *Fundamentals of Artificial Intelligence (Senior High School Edition)*, chapter 8, pages 135–152. East China Normal University Press and The Commercial Press, 2018. [[link](#)]
- [5] **Zhizhong Li** and Dahua Lin. Integrating Specialized Classifiers Based on Continuous Time Markov Chain. In *Proceedings of the Twenty-Sixth International Joint Conference on Artificial Intelligence (IJCAI)*, pages 2244–2251, 2017. [[paper](#)] [[code](#)]
- [6] Xingcheng Zhang\*, **Zhizhong Li\***, Chen Change Loy, and Dahua Lin. PolyNet: A Pursuit of Structural Diversity in Very Deep Networks. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, pages 718–726, 2017. [[paper](#)] [[repo](#)]
- [7] **Zhizhong Li**, Deli Zhao, Zhouchen Lin, and Edward Y Chang. Determining Step Sizes in Geometric Optimization Algorithms. In *2015 IEEE International Symposium on Information Theory (ISIT)*, pages 1217–1221. IEEE, 2015. [[paper](#)] [[code](#)]
- [8] **Zhizhong Li**, Deli Zhao, Zhouchen Lin, and Edward Y Chang. A New Retraction for Accelerating the Riemannian Three-Factor Low-Rank Matrix Completion Algorithm. In *Proceedings of the IEEE Conference on Computer Vision and Pattern Recognition (CVPR)*, pages 4530–4538, 2015. [[paper](#)] [[code](#)]

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## Research Interests

Matting | Video Understanding | Graph Convolution | Reinforcement Learning | Generative Models  
| Ensemble Learning | Geometric Optimization

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## Work Experience

- Oct 2019–  
Now **SenseTime**, *Hong Kong, China*.  
Senior Researcher at EIG Supervisor: Wayne Zhang  
In charge of the AI technology in AIGC (AI Generated Content), which uses innovations in AI to help the content production in advertising industry.
- May–Aug  
2018 **SenseTime**, *Shenzhen, China*.  
Intern at Training & Supercomputing Platform Supervisor: Shengen Yan  
Develop the back-end of the SenseStudy AI package. It is an interactive system that helps beginners to learn concepts and techniques in machine learning.
- Aug 2014–  
Jul 2015 **HTC**, *Beijing, China*.  
Intern at Advanced Algorithm Research Supervisor: Deli Zhao  
Research on geometric optimization algorithms. Applying Riemannian geometry in solving the low-rank matrix decomposition problem for recommendation systems.

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## Teaching Assistant

- TA at  
CUHK - Linear Algebra and Vector Calculus for Engineers (ESTR), *Spring 2019 and 2018*  
- Introduction to Engineering Design, *Fall 2018, 2017 and 2016*  
- Microcontrollers and Embedded Systems, *Spring 2017*  
- Engineering Physics: Electromagnetics, Optics and Modern Physics, *Spring 2016*  
- Simulation and Statistical Analysis, *Fall 2015*
- TA at  
PKU - Geometry, School of Mathematics, *Fall 2013*  
- Linear Algebra, Guanghua School of Management, *Spring 2013*  
- Calculus, School of Economics, *Fall 2012*

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## Projects

- Jul–Aug  
2018 **DeeCamp 2018**.  
Leader of the Killers Team  
We use reinforcement learning to play StarCraft II. Our group proposed a novel paralleled multi-environment shaping method, which successfully solved the *Building Marines* minigame. [[demo video](#)]
- Nov 2017–  
Apr 2018 **AI Textbook**.  
Leader of the Writting Group  
We wrote the first AI textbook in the world for high school students, which has been widely acclaimed. Except for the organizing and proofreading work, I am also the author of Chapter 8. [[Douban](#)] [[Amazon](#)]
- Jul–Sep  
2016 **ImageNet 2016 Competition**.  
Co-leader of the CU-DeepLink Team  
We won the third place in the classification+localization track of ILSVRC 2016. The proposed Very Deep PolyNet model achieves the highest single-model accuracy in the world at the time. [[project](#)] [[results](#)]

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## Contribution

- Reviewer IJCV, NIPS, PRCV, Journal of Harbin Institute of Technology (New Series)  
Contributor [MMAction2](#) | [MMPose](#) | [LIBLINEAR.jl](#) | [setup](#) | [denseflow](#) | [LaTeX-Workshop](#) | [julia](#) | [vscode](#)

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## Interests

- Classical Guitar
- Squash