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研究领域　深度学习和计算机视觉，尤其是资源受限场景下的高效学习和动态神经网络。

教育经历

博士, **清华大学自动化系**　　　　　　　　　　　　　　　　　**2018 - 2024**
导师: 宋士吉, 黄高 (DenseNet 一作，CVPR 2017 最佳论文奖)

本科, **清华大学自动化系**　　　　　　　　　　　　　　　　　**2014 - 2018**
GPA 排名: 38/141

实习经历

旷视科技，基础模型组　　　　　　　　　　　　　　　　**04/2023 - 12/2023**
导师: 张祥雨 (ResNet 二作，ShuffleNet 一作，CVPR 2016 最佳论文奖)

佐治亚理工，人机交互学院　　　　　　　　　　　　　　**06/2017 - 8/2017**
导师: Gregory D Abowd

奖励与荣誉

- 中国图象图形学会自然科学奖一等奖　　　　　　　　　　　　　　2024
- 清华大学优秀毕业生　　　　　　　　　　　　　　　　　　　　　2024
- 清华大学优秀博士学位论文　　　　　　　　　　　　　　　　　　2024
- 北京市优秀毕业生　　　　　　　　　　　　　　　　　　　　　　2024
- 研究生综合奖学金, 清华大学　　　　　　　　　　　　　　　　　2023
- 国家奖学金, 教育部　　　　　　　　　　　　　　　　　　　　　2022
- 综合优秀奖学金, 清华大学　　　　　　　　　　　　　　　　　　2017
- 综合优秀奖学金, 清华大学　　　　　　　　　　　　　　　　　　2016
- 学业优秀奖学金, 清华大学　　　　　　　　　　　　　　　　　　2015

已发表论文

1. **Yizeng Han***, Gao Huang*, Shiji Song, Le Yang, Honghui Wang, Yulin Wang. Dynamic neural networks: a survey. *IEEE Transactions on Pattern Analysis and Machine Intelligence* (**TPAMI**), 2021.

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3. **Yizeng Han**, Gao Huang, Shiji Song, Le Yang, Yitian Zhang, Haojun Jiang. Spatially adaptive feature refinement for efficient inference. *IEEE Transactions*

on Image Processing (**TIP**), 2021.

4. Wangbo Zhao*, **Yizeng Han***, Jiasheng Tang, Zhikai Li, Yibing Song, Kai Wang, Zhangyang Wang, Yang You. A Stitch in Time Saves Nine: Small VLM is a Precise Guidance for accelerating Large VLMs. *The Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2025.

5. Wangbo Zhao, **Yizeng Han**, Jiasheng Tang, Kai Wang, Yibing Song, Gao Huang, Fan Wang, Yang You. Dynamic Diffusion Transformer. *International Conference on Learning Representations* (**ICLR**), 2025.

6. **Yizeng Han***, Dongchen Han*, Zeyu Liu, Yulin Wang, Xuran Pan, Yifan Pu, Chao Deng, Junlan Feng, Shiji Song, Gao Huang. Dynamic Perceiver for Efficient Visual Recognition. *International Conference on Computer Vision* (**ICCV**), 2023.

7. **Yizeng Han***, Zhihang Yuan*, Yifan Pu*, Chenhao Xue, Shiji Song, Guangyu Sun, Gao Huang. Latency-aware Spatial-wise Dynamic Networks. *Conference on Neural Information Processing Systems* (**NeurIPS**), 2022.

8. **Yizeng Han***, Yifan Pu*, Zihang Lai, Chaofei Wang, Shiji Song, Junfeng Cao, Wenhui Huang, Chao Deng, Gao Huang. Learning to Weight Samples for Dynamic Early-exiting Networks. *European Conference on Computer Vision* (**ECCV**), 2022.

9. Le Yang*, **Yizeng Han***, Xi Chen, Shiji Song, Jifeng Dai, Gao Huang. Resolution adaptive networks for efficient inference. *Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2020.

10. Yifan Pu*, **Yizeng Han***, Yulin Wang, Junlan Feng, Chao Deng, Gao Huang. Fine-grained Recognition with Learnable Semantic Data Augmentation. *IEEE Transactions on Image Processing* (**TIP**), 2023.

11. Chaoqun Du*, **Yizeng Han***, Gao Huang. SimPro: A Simple Probabilistic Framework Towards Realistic Long-Tailed Semi-Supervised Learning. *International Conference on Machine Learning* (**ICML**), 2024.

12. Wangbo Zhao, Jiasheng Tang, **Yizeng Han**, Yibing Song, Kai Wang, Gao Huang, Fan Wang, Yang You. Dynamic Tuning Towards Parameter and Inference Efficiency for ViT Adaptation. *Conference on Neural Information Processing Systems* (**NeurIPS**), 2024.

13. Yulin Wang, Yang Yue, Yang Yue, Huanqian Wang, Haojun Jiang, **Yizeng Han**, Zanlin Ni, Yifan Pu, Minglei Shi, Rui Lu, Qisen Yang, Andrew Zhao, Zhuofan Xia, Shiji Song, Gao Huang. Emulating Human-like Adaptive Vision for Efficient and Flexible Machine Visual Perception. *Nature Machine Intelligence*, 2025.

14. Dongchen Han, Ziyi Wang, Zhuofan Xia, **Yizeng Han**, Yifan Pu, Chunjiang Ge, Jun Song, Shiji Song, Bo Zheng, Gao Huang. Demystify Mamba in Vision: A Linear Attention Perspective. *Conference on Neural Information Processing Systems* (**NeurIPS**), 2024.

15. Dongchen Han, Yifan Pu, Zhuofan Xia, **Yizeng Han**, Xuran Pan, Xiu Li, Jiwen Lu, Shiji Song, Gao Huang. Bridging the Divide: Reconsidering Softmax and Linear Attention. *Conference on Neural Information Processing Systems* (**NeurIPS**), 2024.

16. Zanlin Ni, Yulin Wang, Renping Zhou, **Yizeng Han**, Jiayi Guo, Zhiyuan Liu, Yuan Yao, Gao Huang. ENAT: Rethinking Spatial-temporal Interactions in Token-based Image Synthesis. *Conference on Neural Information Processing Systems* (**NeurIPS**), 2024.

17. Yang Yue, Yulin Wang, Bingyi Kang, **Yizeng Han**, Shenzhi Wang, Shiji Song, Jiashi Feng, Gao Huang. Dynamic Inference of Multimodal Large Language Models for Efficient Robot Execution. *Conference on Neural Information Processing Systems* (**NeurIPS**), 2024.

18. Le Yang, Ziwei Zheng, **Yizeng Han**, Shiji Song, Gao Huang, Fan Li. OStr-DARTS: Differentiable Neural Architecture Search based on Operation Strength. *IEEE Transactions on Cybernetics*, 2024.

19. Dongchen Han*, Tianzhu Ye*, **Yizeng Han**, Zhuofan Xia, Shiji Song, Gao Huang. Agent Transformer: On the Integration of Softmax and Linear Attention. *European Conference on Computer Vision* (**ECCV**), 2024.

20. Jiangshan Wang, Yifan Pu, Yiru Wang, **Yizeng Han**, Jiayi Guo, Xiu Li, Gao Huang, GRA: Detecting Oriented Objects through Group-wise Rotating and Attention. *European Conference on Computer Vision* (**ECCV**), 2024.

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22. Yifan Pu, Zhuofan Xia, Jiayi Guo, Dongchen Han, Qixiu Li, Duo Li, Yuhui Yuan, Ji Li, **Yizeng Han**, Shiji Song, Gao Huang, Xiu Li. Efficient Diffusion Transformer with Step-wise Dynamic Attention Mediators. *European Conference on Computer Vision* (**ECCV**), 2024.

23. Zhuofan Xia, Dongchen Han, **Yizeng Han**, Xuran Pan, Shiji Song, Gao Huang. GSVA: Generalized Segmentation via Multimodal Large Language Models. *Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2024.

24. Yong Xien Chng, Henry Zheng, **Yizeng Han**, Xuchong Qiu, Gao Huang. Mask Grounding for Referring Image Segmentation. *Conference on Computer Vision and Pattern Recognition* (**CVPR**), 2024.

25. Yulin Wang, Yang Yue, Rui Lu, **Yizeng Han**, Shiji Song, Gao Huang. EfficientTrain++: Generalized Curriculum Learning for Efficient Visual Backbone Training. *IEEE Transactions on Pattern Analysis and Machine Intelligence* (**TPAMI**), 2024.

26. Dongchen Han, Xuran Pan, **Yizeng Han**, Shiji Song, Gao Huang. FLatten Transformer: Vision Transformer using Focused Linear Attention. *International Conference on Computer Vision* (**ICCV**), 2023.

27. Yifan Pu, Yiru Wang, Zhuofan Xia, **Yizeng Han**, Yulin Wang, Weihao Gan, Zidong Wang, Shiji Song, Gao Huang. Adaptive Rotated Convolution for Rotated Object Detection. *International Conference on Computer Vision* (**ICCV**), 2023.

28. Yulin Wang, Zhaoxi Chen, Haojun Jiang, Shiji Song, **Yizeng Han**, G Huang. Adaptive Focus for Efficient Video Recognition. *International Conference on Computer Vision* (**ICCV, Oral**), 2021.

29. Chaofei Wang, Jiayu Xiao, **Yizeng Han**, Qisen Yang, Shiji Song, Gao Huang. Towards learning spatially discriminative feature representations. *International Conference on Computer Vision* (**ICCV**), 2021.

30. Le Yang, Xiaoli Gong, Zhengwei Wu, **Yizeng Han**, Lijun He, Fan Li. Dark-channel mixed attention based neural networks for smoke detection in fog environment. *ACM International Joint Conference on Pervasive and Ubiquitous Computing* (**UbiComp**), 2021.

31. Cheng Zhang, Qiuyue Xue, Anandghan Waghmare, Ruichen Meng, Sumeet Jain, **Yizeng Han**, Xinyu Li, Kenneth Cunefare, Thomas Ploetz, Thad Starner, Omer Inan, Gregory D Abowd. FingerPing: Recognizing fine-grained hand poses using active acoustic on-body sensing. *Proceedings of the CHI Conference on Human Factors in Computing Systems*, 2018.

投稿与预印

1. Inferix Team: Tianyu Feng, Yizeng Han, Jiahao He, Yuanyu He, Xi Lin, Teng Liu, Hanfeng Lu, Jiasheng Tang, Wei Wang, Zhiyuan Wang, Jichao Wu, Mingyang Yang, Yinghao Yu, Zeyu Zhang, Bohan Zhuang. Inferix: A Block-Diffusion based Next-Generation Inference Engine for World Simulation. *Arxiv*, 2025.

2. Zeyu Zhang, Shuning Chang, Yuanyu He, Yizeng Han, Jiasheng Tang, Fan Wang, Bohan Zhuang. BlockVid: Block Diffusion for High-Quality and Consistent Minute-Long Video Generation. *Arxiv*, 2025.

3. Wangbo Zhao, Yizeng Han, Zhiwei Tang, Jiasheng Tang, Pengfei Zhou, Kai Wang, Bohan Zhuang, Zhangyang Wang, Fan Wang, Yang You. RAPID[3]: Tri-Level Reinforced Acceleration Policies for Diffusion Transformer. *Arxiv*, 2025.

* 共同一作

受邀演讲	- 阿里达摩院	10/2022
	- 华为	01/2022
	- 机器之心	03/2021

研究项目	- 面向资源受限场景的动态神经网络网络及其可解释性研究, 清华大学	2020 - 2022
	- 达芬奇芯片友好的神经网络架构设计, 清华大学	2020 - 2022
	- 面向深度学习的自适应推理方法研究, 清华大学	2019 - 2020

学术兼职   以下学术会议或期刊的**审稿人**
- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- International Journal of Computer Vision (IJCV)
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
- International Conference on Machine Learning (ICML)
- Conference on Neural Information Processing Systems (NeurIPS)
- International Conference on Learning Representations (ICLR)
- Conference on Computer Vision and Pattern Recognition (CVPR)
- International Conference on Computer Vision (ICCV)
- European Conference on Computer Vision (ECCV)
- The Association for the Advancement of Artificial Intelligence (AAAI)
- Pattern Recognition (PR)
- International Conference on Image and Graphics (ICIG)