

韩益增

联系方式	阿里巴巴达摩院 北京	邮箱: hanyizeng.hyz@alibaba-inc.com 个人主页: www.yizenghan.top
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	<ul style="list-style-type: none">- 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	<ol style="list-style-type: none">1. Yizeng Han*, Gao Huang*, Shiji Song, Le Yang, Honghui Wang, Yulin Wang. Dynamic neural networks: a survey. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)</i>, 2021.2. Yizeng Han*, Zeyu Liu*, Zhihang Yuan*, Yifan Pu, Gao Huang, Shiji Song. Latency-aware Unified Dynamic Networks For Efficient Image Recognition. <i>IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)</i>, 2024.3. Yizeng Han, Gao Huang, Shiji Song, Le Yang, Yitian Zhang, Haojun Jiang. Spatially adaptive feature refinement for efficient inference. <i>IEEE Transactions on Image Processing (TIP)</i>, 2021.4. 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.
5. **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.
 6. **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.
 7. 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.
 8. 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.
 9. 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.
 10. 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.
 11. 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.
 12. 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.
 13. 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.
 14. 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.
 15. 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.
16. Le Yang, Ziwei Zheng, **Yizeng Han**, Shiji Song, Gao Huang, Fan Li. OStrDARTS: Differentiable Neural Architecture Search based on Operation Strength. *IEEE Transactions on Cybernetics*, 2024.
 17. 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.
 18. 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.
 19. Le Yang, Ziwei Zheng, **Yizeng Han**, Hao Cheng, Shiji Song, Gao Huang, Fan Li. DyFADet: Dynamic Feature Aggregation for Temporal Action Detection. *European Conference on Computer Vision (ECCV)*, 2024.
 20. 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.
 21. 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.
 22. 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.
 23. 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.
 24. 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.
 25. 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.
 26. 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.

27. 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.
28. 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.
29. 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. 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. *Arxiv*, 2024.

* 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)