

# 韩益增

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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 至今**  
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 至今**  
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      - 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      2017  
- 学业优秀奖学金, 清华大学      2015

已发表论文

- 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.
- Yizeng Han\***, Zeyu Liu\*, Zhihang Yuan\*, Yifan Pu, Gao Huang, Shiji Song. Latency-aware Unified Dynamic Networks For Efficient Image Recognition. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2024.
- 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. **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. 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.
8. 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.
9. 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.
10. 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.
11. 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.
12. 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.

13. 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.
14. 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.
15. 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.
16. 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. Dongchen Han\*, Tianzhu Ye\*, **Yizeng Han**, Zhuofan Xia, Shiji Song, Gao Huang. Agent Transformer: On the Integration of Softmax and Linear Attention. *Arxiv preprint*.
2. Le Yang, Ziwei Zheng, **Yizeng Han**, Shiji Song, Gao Huang, Fan Li. DyFADet: Dynamic Feature Aggregation for Temporal Action Detection. *In submission*.
3. Le Yang, Ziwei Zheng, **Yizeng Han**, Shiji Song, Gao Huang, Fan Li. OStr-DARTS: Differentiable Neural Architecture Search based on Operation Strength. *In submission*.
4. Yulin Wang, Yang Yue, Rui Lu, **Yizeng Han**, Shiji Song, Gao Huang. EfficientTrain: Generalized Curriculum Learning for Training Visual Backbones. *In submission*.
5. Jiangshan Wang, Yifan Pu, Yiru Wang, **Yizeng Han**, Jiayi Guo, Xiu Li, Gao Huang, GRA: Detecting Oriented Objects through Group-wise Rotating and Attention. *In submission*.

\* 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	智源社区动态神经网络研究小组发起人	
	以下学术会议或期刊的 <b>审稿人</b>	
	- 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)	
	- Pattern Recognition (PR)	
- International Conference on Image and Graphics (ICIG)		