

韩益增

联系方式 清华大学中央主楼 616 邮箱: hanyz18@mails.tsinghua.edu.cn
中国北京, 100084 电话: (+86)18800127138
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 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. 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.
10. 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.
11. 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.
12. 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.

13. 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.
14. Yulin Wang, Yang Yue, Rui Lu, **Yizeng Han**, Shiji Song, Gao Huang. EfficientTrain: Generalized Curriculum Learning for Training Visual Backbones. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)*, 2024.
15. 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.
16. 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.
17. 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.
18. 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**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)
 - Pattern Recognition (PR)
 - International Conference on Image and Graphics (ICIG)