# Yizeng Han

Contact 616 Center Main Building, Email: hanyz18@mails.tsinghua.edu.cn Information Tsinghua University, Phone: (+86)18800127138 Beijing 100084, China Web: www.vizenghan.top Research My research focuses on deep learning and computer vision, in particular dynamic neural Interests networks and efficient learning/inference of deep models in resource-constrained scenarios. Ph.D. Department of Automation, Tsinghua University EDUCATION 2018 - Present Advisors: Shiji Song and Gao Huang B.S., Department of Automation, Tsinghua University 2014 - 2018 GPA Rank: 38/141 Research Intern, Megvii Technology 04/2023 - Present EXPERIENCE Advisor: Xiangvu Zhang Intern, Georgia Institute of Technology 06/2017 - 8/2017Advisor: Gregory D Abowd AWARDS & - National Scholarship, Ministry of Education of China 2022 HONORS - Comprehensive Merit Scholarship, Tsinghua University 2017 & 2016- Academic Excellence Scholarship, Tsinghua University 2015 **Publications** 1. Yizeng Han\*, Gao Huang\*, Shiji Song, Le Yang, Honghui Wang, Yulin Wang. & Preprints Dynamic neural networks: a survey. IEEE Transactions on Pattern Analysis and Machine Intelligence (**TPAMI**), 2021.

- 2. 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.
- 3. 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.
- 4. 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.
- 5. 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.
- 6. 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.
- 7. Dongchen Han, Xuran Pan, **Yizeng Han**, Shiji Song, Gao Huang. Transformer: Vision Transformer using Focused Linear Attention. International Conference on Computer Vision (ICCV), 2023.

- 8. 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.
- 9. 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.
- 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.
- 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.
- 12. 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 2018 CHI Conference on Human Factors in Computing Systems, 2018.

#### \* Equal contribution

Invited Talks - Alibaba Damo Academy, China	10/2022
& - Huawei Inc., China	01/2022
Presentations - Jiqizhixin, China	03/2021

## RESEARCH PROJECTS

- Dynamic convolutional neural network and its interpretability for resource-constrained scenarios, Tsinghua University 2020 2022
- Da Vinci chip-friendly network architecture design, Tsinghua University
  Adaptive deep learning and visual methods, Tsinghua University
  2020 2022
  2019 2020

## REVIEWING & Reviewer for

#### SERVICE

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
- International Journal of Computer Vision (IJCV)
- IEEE Transactions on Neural Networks and Learning Systems (TNNLS)
- International Conference on Machine Learning (ICML)
- Conference on Neural Information Processing Systems (NeurIPS)
- 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)