Xianhang Li

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EDUCATION

University of California, Santa Cruz
Ph.D. student in Computer Science and Engineering
Santa Cruz, CA
Sep. 2021 – Now

University of Central Florida
M.Sc in Computer Science
Orlando, FL
Aug. 2019 – May 2021

Beijing University of Posts and Telecommunications
B.E. in Telecommunications Engineering and Management
Beijing, China
Sep. 2014 – June 2018

RESEARCH INTEREST

I am a Ph.D. student at UCSC, under the supervision of Prof. Cihang Xie. My primary research interests are computer vision and deep learning. My recent works mainly focus on visual recognition and video synthesis.

PUBLICATIONS

[1] **Efficient VideoMAE via Temporal Progressive Learning (submitted to CVPR 2023)**
Xianhang Li, Peng Wang, Xinyu Li, Heng Wang, Cihang Xie
we present a Temporal Progressive Learning, which separates the learning process from a more informative-dense while low-cost spatio training to a costly temporal training. Our method can reach the SoTA performance but only require 2 × epochs.

[2] **Unleashing the Power of Visual Prompting At the Pixel Level (submitted to CVPR 2023)**
Junyang Wu*, **Xianhang Li***, Chen Wei, Huiyu Wang, Alan Yuille, Yuyin Zhou, Cihang Xie (* Equal Contribution)
we present a simple yet effective visual prompting method for adapting pre-trained models to different downstream recognition tasks. With a CLIP model, our method sets the new record of 82.8% averaged accuracy over 12 popular classification datasets.

[3] **Learning to Bootstrap for Combating Label Noise (submitted to ICLR 2023)**
Yuyin Zhou, **Xianhang Li**, Fengze Liu, Xuxi Chen, Lequan Yu, Cihang Xie, Lungren Matthew, Lei Xing
We propose a novel and effective learning framework that significantly improves the performance on several noise-label benchmarks. Our method also achieves the state-of-the-art performance on the real-world noisy-label dataset.

[4] **In Defense of Image Pre-Training for Spatiotemporal Recognition (ECCV 2022)**
Xianhang Li, Huiyu Wang, Chen Wei, Jieru Mei, Alan Yuille, Yuyin Zhou, Cihang Xie
We revisit image pre-training as the appearance prior to initializing 3D kernels and propose to effectively leveraging image pre-training and a novel STS conv to speedup and enhance 3D CNNs on video recognition task.

[5] **Fast AdvProp (ICLR 2022)**
Jieru Mei, Yucheng Han, Yutong Bai, Yixiao Zhang, Yingwei Li, **Xianhang Li**, Alan Yuille, Cihang Xie
AdvProp suffers from the extremely slow training speed. We introduce Fast AdvProp, which aggressively revamps AdvProp's costly training components, rendering the method nearly as cheap as the vanilla training setting.

[6] **Pose-guided Generative Adversarial Net for Novel View Action Synthesis (WACV 2022)**
Xianhang Li, Junhao Zhang, Kunchang Li, Shruti Vyas and Yogesh S Rawat
We present PAS-GAN for novel view video synthesis where we explore the use of pose to solve this problem. Generated target-view at pose space significantly reduces the learning difficulty and improve the quality of generated video.

[7] **CT-Net: Channel Tensorization Network for Video Classification (ICLR 2021)**
Kunchang Li*, **Xianhang Li***, Yali Wang*, Jun Wang, Yu Qiao (* Equal Contribution)
We propose channel Tensorization Network (CT-Net), by treating the channel dimension of input feature as a multiplication of K sub-dimensions. Our CT-Net outperforms a number of recent SOTA approaches, in terms of accuracy and/or efficiency.

[8] SmallBigNet: Integrating Core and Contextual Views for Video Classification (CVPR 2020)
Xianhang Li*, Yali Wang*, Zhipeng Zhou*, Yu Qiao (* Equal Contribution)
We propose a concise SmallBig network, with the cooperation of small and big views that can provide the small view branch with the most activated video features from a broader 3D receptive field. Our SmallBig network outperforms recent SOTA approaches.

RESEARCH EXPERIENCE

ByteDance Intelligent Creation Lab   Mountain View, CA
Research Intern, advised by Dr. Peng Wang   *June 2022 – Now*

University of California, Santa Cruz   Santa Cruz, CA
Research Assistant, advised by Prof. Cihang Xie   *June 2021 – June 2022*

University of Central Florida   Orlando, FL
Graduate Research Assistant, advised by Prof. Yogesh S Rawat   *May 2020 – May 2021*

MMLab, SIAT   Shenzhen, China
Visiting Student, advised by Prof. Yu Qiao   *Oct. 2018 – Nov. 2020*

AWARD

University of California, Santa Cruz Chancellor's Fellowship, 2021

TECHNICAL SKILLS

Languages: Python, Java, C
Frameworks: Pytorch, Tensorflow, Caffe, React, Flask

PROFESSIONAL SERVICES

Reviewer: ICLR 2023, WACV 2023, ICCV 2021, WACV 2022, CVPR 2022