Baifeng Shi

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https://bfshi.github.io/

EDUCATION BACKGROUND

University of California, Berkeley   09/2021 – now
Ph.D. student, Computer Science
- Advisor: Trevor Darrell
- Programming Skills: Python, PyTorch, MATLAB, C++
- Awards and Honors:
    BAIR Ignition Reward, UC Berkeley   09/2021

Peking University   09/2017 - 06/2021
B.S., Computer Science
- Advisor: Yadong Mu
- Overall GPA: 3.75 / 4
- Awards and Honors:
    Gold Medal (3 / 360), Chinese Physics Olympiad final contest   10/2016
    EECS Dean Scholarship, Peking University   09/2017
    Merit Student, Peking University   09/2018 & 09/2020

RESEARCH APPOINTMENTS

- **University of California, Berkeley**, Research Assistant   09/2021 - now
  Advisor: Prof. Trevor Darrell
- **NVIDIA Research**, Research Intern   03/2024 - now
  Mentor: Dr. Hongxu (Danny) Yin & Dr. Pavlo Molchanov
- **Microsoft Research**, Student Researcher through BAIR Commons Program   09/2021 - 02/2022
  Mentor: Dr. Xin Wang
- **University of California, Berkeley**, Research Intern   03/2020 - 11/2020
  Mentor: Dr. Huijuan Xu & Prof. Trevor Darrell
- **Microsoft Research Asia**, Research Intern   09/2019 - 03/2021
  Mentor: Dr. Qi Dai & Dr. Jingdong Wang
- **Peking University**, Research Intern   09/2018 - 09/2019
  Advisor: Prof. Yadong Mu

CONFERENCE PUBLICATIONS

- Ilija Radosavovic, Bike Zhang, **Baifeng Shi**, Jathushan Rajasegaran, Sarthak Kamat, Trevor Darrell, Koushil Sreenath, Jitendra Malik, *Humanoid Locomotion as Next Token Prediction*, **NeurIPS 2024, spotlight**
- Dantong Niu, Yuvan Sharma, Giscard Biamby, Jerome Quenum, Yutong Bai, **Baifeng Shi**, Trevor Darrell, Roei Herzig, *LLARVA: Vision-Action Instruction Tuning Enhances Robot Learning*, **CoRL 2024**
- **Baifeng Shi**, Ziyang Wu, Maolin Mao, Xin Wang, Trevor Darrell, *When Do We Not Need Larger Vision Models?*, **ECCV 2024**
- Jiaxin Ge, Sanjay Subramanian, **Baifeng Shi**, Roei Herzig, Trevor Darrell, *Recursive Visual Programming*, **ECCV 2024**
- Ilija Radosavovic, **Baifeng Shi,** Letian Fu, Ken Goldberg, Trevor Darrell[*], Jitendra Malik[*], *Robot Learning with Sensorimotor Pre-training,* **CoRL 2023, oral presentation**
- Long Lian[*], **Baifeng Shi[*],** Adam Yala, Trevor Darrell, Boyi Li, *LLM-Grounded Video Diffusion Models,* **ICLR 2024**
- **Baifeng Shi,** Trevor Darrell, Xin Wang, *Top-down Visual Attention from Analysis by Synthesis,* **CVPR 2023, conference highlight**
- **Baifeng Shi,** Yale Song, Neel Joshi, Trevor Darrell, Xin Wang, *Visual Attention Emerges from Recurrent Sparse Reconstruction*, **ICML 2022**
- **Baifeng Shi**, Qi Dai, Judy Hoffman, Kate Saenko, Trevor Darrell, Huijuan Xu, *Temporal Action Detection with Multi-level Supervision*, **ICCV 2021**
- **Baifeng Shi**, Judy Hoffman, Kate Saenko, Trevor Darrell, Huijuan Xu, *Auxiliary Task Reweighting for Minimum-data Learning*, **NeurIPS 2020**
- Zhekun Luo, Devin Guillory, **Baifeng Shi**, Wei Ke, Fang Wan, Trevor Darrell, Huijuan Xu, *Weakly-Supervised Action Localization with Expectation-Maximization Multi-Instance Learning*, **ECCV 2020**
- **Baifeng Shi[*]**, Dinghuai Zhang[*], Qi Dai, Zhanxing Zhu, Yadong Mu, Jingdong Wang, *Informative Dropout for*

Robust Representation Learning: A Shape-bias Perspective, **ICML 2020**
- **Baifeng Shi**, Qi Dai, Jingdong Wang, Yadong Mu, *Weakly-Supervised Action Localization by Generative Attention Modeling*, **CVPR 2020**

PREPRINTS
- Letian Fu, Long Lian, Renhao Wang, **Baifeng Shi**, Xudong Wang, Adam Yala, Trevor Darrell, Alexei A Efros, Ken Goldberg, *Rethinking Patch Dependence for Masked Autoencoders*, 2024
- **Baifeng Shi**, Siyu Gai, Trevor Darrell, Xin Wang, *TOAST: Transfer Learning via Attention Steering*, 2023

INVITED TALKS
- **Scaling Up Visual Pre-Training, What's Next?**, AI Tea Talk Singapore, Jun 2024
- **Scaling Up Visual Pre-Training, What's Next?**, VGG Group, University of Oxford, Apr 2024
- **Scaling Up Visual Pre-Training, What's Next?**, Prof. Yi Ma's group, UC Berkeley, Mar 2024
- **Principles and Applications of Bottom-Up and Top-Down Visual Attention**, Peking University, Oct 2023
- **Principles and Applications of Bottom-Up and Top-Down Visual Attention**, TechBeat, Jun 2023