

Baifeng Shi

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<https://bfshi.github.io/>

EDUCATION BACKGROUND

University of California, Berkeley <i>Ph.D. student, Computer Science</i> <ul style="list-style-type: none">• Advisor: Trevor Darrell• Programming Skills: Python, PyTorch, MATLAB, C++• Awards and Honors: BAIR Ignition Reward, UC Berkeley	09/2021 – now
Peking University <i>B.S., Computer Science</i> <ul style="list-style-type: none">• Advisor: Yadong Mu• Overall GPA: 3.75 / 4• Awards and Honors: Gold Medal (3 / 360), Chinese Physics Olympiad final contest EECS Dean Scholarship, Peking University Merit Student, Peking University	09/2017 - 06/2021 10/2016 09/2017 09/2018 & 09/2020

RESEARCH APPOINTMENTS

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

CONFERENCE PUBLICATIONS

- **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

- Dantong Niu, Yuvan Sharma, Giscard Biamby, Jerome Quenum, Yutong Bai, **Baifeng Shi**, Trevor Darrell, Roei Herzig, *LLARVA: Vision-Action Instruction Tuning Enhances Robot Learning*, 2024
- Ilija Radosavovic, Bike Zhang, **Baifeng Shi**, Jathushan Rajasegaran, Sarthak Kamat, Trevor Darrell, Koushil Sreenath, Jitendra Malik, *Humanoid Locomotion as Next Token Prediction*, 2024
- 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