# Xingyi Yang

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#### **EDUCATION**

National University of Singapore(NUS)

PhD. SP&ML, Electrical and Computer Engineering

University of Oxford

Visiting Student, Department of Engineering Science

University of California, San Diego(UCSD)

Msc. SIP, Electrical and Computer Engineering, Jacobs School of Engineering

Southeast University

B.Eng. Computer Engineering

University of Ottawa

Visiting Student, Electrical and Computer Engineering

Singapore

Sept. 2021-Present

Oxford, United Kingdom

Sep. 2024-Present

La Jolla, USA

Sept. 2019-Jun. 2021

Nanjing, China

Sept. 2015-Jun. 2019

Ottawa, Canada

Jun. 2018-Sept. 2018

#### RESEARCH INTEREST

• Deep Model Reuse: Model Reuse, Interpretability, Compositionality and Transfer Learning.

• Generative Model: Diffusion Probabilistic Model, 3D/Video Generation.

• Computer Vision: Recognition, Detection, Representation Learning and 3D Reconstruction.

#### SELECTED PUBLICATIONS

1. Xingyi Yang, Xinchao Wang

Languag Model as Visual Explainer

Conference on Neural Information Processing Systems (NeurIPS 2024).

2. Xingyi Yang, Xinchao Wang

Neural Metamorphosis

European Conference on Computer Vision (ECCV 2024).

3. Xingyi Yang, Xinchao Wang

Diffusion Model as Representation Learner

International Conference on Computer Vision (ICCV 2023).

4. Xingyi Yang, Daquan Zhou, Jiashi Feng, Xinchao Wang

Diffusion Probabilistic Model Made Slim

Conference on Computer Vision and Pattern Recognition (CVPR 2023).

5. Xinjiang Wang\*, Xingyi Yang\*, Shilong Zhang, Yijiang Li,

Litong Feng, Shijie Fang, Chengqi Lyu, Kai Chen, Wayne Zhang

Consistent-Teacher: Towards Reducing Inconsistent Pseudo-targets in Semi-supervised Object Detection

Conference on Computer Vision and Pattern Recognition (CVPR 2023) \* Contributed Equally. (Highlight).

6. Xingyi Yang, Daquan Zhou, Songhua Liu, Jingwen Ye, Xinchao Wang

Deep Model Reassembly

Conference on Neural Information Processing Systems (NeurIPS 2022) (Paper Award Nomination).

7. Xingyi Yang, Jingwen Ye, Xinchao Wang

Factorizing Knowledge in Neural Networks

European Conference on Computer Vision(ECCV 2022).

8. Xingyi Yang, Muchao Ye, Quanzeng You, Fenglong Ma.

Writing by Memorizing: Hierarchical Retrieval-based Medical Report Generation

Annual Meeting of the Association for Computational Linguistics (ACL 2021) (Long Oral).

#### INTERNSHIP AND RESEARCH EXPERIENCE

ByteDanceSingaporeResearch InternMay. 2022-Sep. 2022

• Designed an efficient diffusion model that reduced the size of the latent diffusion model by  $10\times$ .

• Supervisor: Dr. Jiashi Feng

## Sensetime Research & Shanghai Artificial Intelligence Lab Research Intern

Shanghai, China April. 2021-Aug. 2021

- Maintain the codebase of OpenMMlab.
- Semi-supervised object detection and image recognition.

### **AWARDS AND CERTIFICATES**

- World Artificial Intelligence Conference Youth Outstanding Paper Nomination Award, 2024.
- Chinese Government Award for Outstanding Self-financed Students Abroad, 2023.
- CVPR 2023 Travel Grant.
- NeurIPS 2022 Paper Award Nomination.
- NeurIPS 2022 Top Reviewer.
- 2th place on CVPR 2022 CLVision Challenge Track 2&Track 3.
- National University of Singapore, Graduate Research Scholarship.
- 12th/2519 place(Defence) on IJACI-19 Alibaba Adversarial Vision Challenge.
- 2018 MCM/ICM Meritorious Winner Prize.

#### **Academic Services and Invited Talk**

- Co-organizer, of CVPR 2024 Tutorial: Disentanglement and Compositionality in Computer Vision.
- Co-organizer, of ECCV 2024 Tutorial: Emerging Trends in Disentanglement and Compositionality.
- Co-organizer, Workflow Chair, of NeurIPS 2020 Workshop: Self-Supervised Learning Theory and Practice.
- Invited Talk, by UIUC on Deep Model Reuse: Paving the Way for Efficient and Generalizable AI Systems.
- Invited Talk, by Valse on The Future of 3D Vision in the Era of LLMs: Challenges and Opportunities.
- Journal Reviewer TIP, PR, TCSVT, JBHI, JVCI, ESWA.
- Conference Reviewer for CVPR, ICCV, ECCV, NeurIPS, ICLR, ICML, AAAI, IJCAI, ICASSP.