# **ZHICHENG SUN**

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#### **EDUCATION**

Peking UniversityBeijing, ChinaPh.D. Student in Data Science09/2020 – 07/2025 (expected)

Supervisor: Prof. Yadong Mu

Peking UniversityBeijing, ChinaB.S. in Computer Science09/2016 – 07/2020

**INTERNSHIP** 

Kuaishou TechnologyBeijing, ChinaResearch Intern on Generative Models01/2024 - Present

Supervisor: Dr. Kun Xu

# RESEARCH INTEREST

I research on **Generative Models** and **Continual Learning**. My short-term goal is to improve generative models from the continual learning perspective (e.g. efficiency, knowledge sharing). My long-term goal is to enable generative models to learn continually (via new paradigms such as flow-based models and equilibrium models).

### **PREPRINTS**

### 1. Pyramidal Flow Matching for Efficient Video Generative Modeling

Yang Jin, Zhicheng Sun, Ningyuan Li, Kun Xu, Kun Xu, Hao Jiang, Nan Zhuang, Quzhe Huang, Yang Song, Yadong Mu, Zhouchen Lin

Preprint, 2024

### 2. Closed-Loop Long-Horizon Robotic Planning via Equilibrium Sequence Modeling

Jinghan Li, Zhicheng Sun, Fei Li, Cao Sheng, Jiazhong Yu, Yadong Mu *Preprint*, 2024

### **PUBLICATIONS**

#### 1. RectifID: Personalizing Rectified Flow with Anchored Classifier Guidance

Zhicheng Sun, Zhenhao Yang, Yang Jin, Haozhe Chi, Kun Xu, Kun Xu, Liwei Chen, Hao Jiang, Yang Song, Kun Gai, Yadong Mu

NeurIPS, 2024

## 2. Video-LaVIT: Unified Video-Language Pre-training with Decoupled Visual-Motional Tokenization

Yang Jin, Zhicheng Sun, Kun Xu, Kun Xu, Liwei Chen, Hao Jiang, Quzhe Huang, Chengru Song, Yuliang Liu, Di Zhang, Yang Song, Kun Gai, Yadong Mu

ICML, 2024 (Oral)

### 3. Exploring Orthogonality in Open World Object Detection

Zhicheng Sun, Jinghan Li, Yadong Mu CVPR, 2024

### 4. Countering Personalized Text-to-Image Generation with Influence Watermarks

Hanwen Liu, Zhicheng Sun, Yadong Mu CVPR, 2024

### 5. Rewiring Neurons in Non-Stationary Environments

Zhicheng Sun, Yadong Mu NeurIPS, 2023 (Spotlight)

### 6. Regularizing Second-Order Influences for Continual Learning

Zhicheng Sun, Yadong Mu, Gang Hua

CVPR, 2023

### 7. Patch-based Knowledge Distillation for Lifelong Person Re-Identification

Zhicheng Sun, Yadong Mu

ACM Multimedia, 2022

## SELECTED AWARDS

- Leo KoGuan Scholarship, Peking University, 2024
- Xingye Scholarship, Peking University, 2023
- Merit Student, Peking University, 2023, 2024
- Academic Innovation Award, Peking University, 2024
- Academic Excellence Award, Peking University, 2022
- Silver Medal in Chinese Physics Olympiad, 2015

### **ACADEMIC SERVICES**

- Conference reviewer: ICLR 2025, NeurIPS 2024, ICCV 2023, ECCV 2024, ACM Multimedia 2022–2024, AISTATS 2025, ACCV 2024, ACML 2024, WACV 2024
- Journal reviewer: TMM 2022–2023, TCSVT 2024, Neurocomputing 2022
- Teaching assistant: Computer Vision and Deep Learning by Prof. Yadong Mu, Spring 2022
- Teaching assistant: Deep Learning: Algorithm and Application by Prof. Yadong Mu, Spring 2024