

# Peihao Zhu

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## WORK EXPERIENCE

### Seed Team, ByteDance

Senior Research Scientist

San Jose, CA

Sep 2024 - present

### Seed Team, ByteDance

Research Scientist

San Jose, CA

Jul 2023 - Aug 2024

### Reality Lab, Meta

Research Scientist Intern

Burlingame, CA

Oct 2022 - Feb 2023

### Creative Vision Lab, Snap

Research Scientist Intern

Los Angeles, CA

May 2022 - Sep 2022

## EDUCATION

### King Abdullah University of Science and Technology (KAUST)

PhD in Computer Science

Kingdom of Saudi Arabia

Dec 2019 - Jun 2023

### King Abdullah University of Science and Technology (KAUST)

Master of Science in Computer Science

Kingdom of Saudi Arabia

Aug 2017 - Dec 2019

### Institute of Automation, Chinese Academy of Sciences

Master candidate in Computer Science

China

Sep 2016 - Jul 2017

### Northeastern University

Bachelor of Technology in Automation; GPA: 90.0/100; Rank: top 5%

China

Aug 2012 - Jun 2016

## PROJECTS

### ByteDance Video Generation Foundation Model - Seedance (Development Phase)

ByteDance Seed Team: PixelDance  $\times$  Seaweed (Dec 2024 - present)

### ByteDance Video Generation Foundation Model - Seaweed

ByteDance Seed Team (Mar 2024 - Nov 2024)

[\[Paper\]](#) [\[Video\]](#) [\[Website\]](#)

### Tiktok AI-moji

Virtual Avatar Team (Jul 2023 - Dec 2024)

[\[Blog\]](#) [\[Platform\]](#)

## PUBLICATIONS

### Seaweed-7B: Cost-Effective Training of Video Generation Foundation Model

ByteDance Seed

Technical Report, 2025

[\[Paper\]](#) [\[Webpage\]](#)

### 3DAvatarGAN: Bridging Domains for Personalized Editable Avatars

Rameen Abdal, Hsin-Ying Lee, [Peihao Zhu](#), Menglei Chai, Aliaksandr Siarohin, Peter Wonka, Sergey Tulyakov

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

[\[Paper\]](#) [\[Webpage\]](#)

### HairNet: Hairstyle Transfer with Pose Changes

[Peihao Zhu](#), Rameen Abdal, John Femiani, Peter Wonka

Proc. European Conference on Computer Vision (ECCV), 2022

[\[Paper\]](#) [\[Webpage\]](#)

### CLIP2StyleGAN: Unsupervised Extraction of StyleGAN Edit Directions

Rameen Abdal, [Peihao Zhu](#), John Femiani, Niloy Mitra, Peter Wonka

SIGGRAPH Conference Proceedings, 2022

[\[Paper\]](#) [\[Webpage\]](#)

### Mind the Gap: Domain Gap Control for Single Shot Domain Adaptation for Generative Adversarial Networks

[Peihao Zhu](#), Rameen Abdal, John Femiani, Peter Wonka

International Conference on Learning Representations (ICLR), 2022

[\[Paper\]](#) [\[Webpage\]](#)

### Barbershop: GAN-based Image Compositing using Segmentation Masks

[Peihao Zhu](#), Rameen Abdal, John Femiani, Peter Wonka

ACM Transactions on Graphics (Proc. SIGGRAPH Asia), 2021

[\[Paper\]](#) [\[Webpage\]](#)

### Improved StyleGAN Embedding: Where are the Good Latents?

[Peihao Zhu](#), Rameen Abdal, Yipeng Qin, John Femiani, Peter Wonka

ArXiv pre-print, 2021

[\[Paper\]](#) [\[Webpage\]](#)

## **Styleflow: Attribute-conditioned exploration of stylegan-generated images using conditional continuous normalizing flows**

Rameen Abdal, [Peihao Zhu](#), Niloy Mitra, Peter Wonka  
*ACM Transactions on Graphics (TOG)*, 2021

[\[Paper\]](#) [\[Webpage\]](#)

## **Labels4Free: Unsupervised Segmentation using StyleGAN**

Rameen Abdal, [Peihao Zhu](#), Niloy J. Mitra, Peter Wonka  
*Proc. IEEE International Conference on Computer Vision (ICCV)*, 2021

[\[Paper\]](#) [\[Webpage\]](#)

## **Flow-Guided Video Inpainting with Scene Templates**

Dong Lao, [Peihao Zhu](#), Peter Wonka, Ganesh Sundaramoorthi  
*Proc. IEEE International Conference on Computer Vision (ICCV)*, 2021

[\[Paper\]](#) [\[Webpage\]](#)

## **SEAN: Image Synthesis with Semantic Region-Adaptive Normalization**

[Peihao Zhu](#), Rameen Abdal, Yipeng Qin, Peter Wonka  
*Proc. IEEE Conference on Computer Vision and Pattern Recognition (CVPR Oral)*, 2020

[\[Paper\]](#) [\[Webpage\]](#)

## **Large Scale Architecture Asset Extraction from Panoramic Imagery**

[Peihao Zhu](#), Wamiq Reyaz Para, Anna Fruehstueck, John Femiani, Peter Wonka  
*IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2020

[\[Paper\]](#) [\[Webpage\]](#)

## **AWARD & ACHIEVEMENTS**

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- **KAUST CEMSE Dean's List Award 2021-2022**
- **National Scholarship 2013**
- KAUST Fellowship 2017
- UCAS Scholarship 2016
- Scholarship for Outstanding Merits 2012-2016

## **SCIENTIFIC REFEREES**

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### **Prof. Peter Wonka**

Full Professor, Visual Computing Center, KAUST  
[peter.wonka@kaust.edu.sa](mailto:peter.wonka@kaust.edu.sa)  
<http://peterwonka.net>