

Zhuoqian (Zack) Yang

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EDUCATION	École Polytechnique Fédérale de Lausanne, IVRL ▪ PhD Candidate, supervised by <i>Prof. Mathieu Salzmann</i> and <i>Prof. Sabine Süsstrunk</i>	Lausanne, CH Sep 2023 – Present
	Carnegie Mellon University, Robotics Institute ▪ M.S. in Computer Vision, advisor: <i>Prof. Kris Kitani</i> GPA: 4.03/4.3 ▪ Courses: Computer Vision (A), Computer Graphics (A), Machine Learning (A+), Geometry-Based Computer Vision (A+), Computational Photography (A-), Learning-Based Computer Vision (A-), Math for Robotics (A)	Pittsburgh, PA, US Aug 2019 – Dec 2020
	Beihang University, School of Software Engineering ▪ B.E. in Software Engineering GPA: 88.1/100, Ranking: 6/149	Beijing, CN Sep 2015 – Jun 2019
PUBLICATIONS	Full list available at https://scholar.google.com/citations?user=WTDthdcAAAAJ .	* equal contribution
	[1] Weight Space Representation Learning via Neural Field Adaptation , Zhuoqian Yang, Mathieu Salzmann, Sabine Süsstrunk Project Page: https://inrainbws.github.io/wsr/	CVPR 2026
	[2] Subtractive Modulative Network with Learnable Periodic Activations , Tiou Wang, Zhuoqian Yang, Markus Flierl, Mathieu Salzmann, Sabine Süsstrunk Project Page: https://inrainbws.github.io/smn/	ICASSP 2026 (Oral)
	[3] 3DHumanGAN: 3D-Aware Human Image Generation with 3D Pose Mapping , Zhuoqian Yang, Shikai Li, Wayne Wu, Bo Dai, Project Page: https://3dhumangan.github.io/	ICCV 2023
	[4] OrthoPlanes: A Novel Representation for Better 3D-Awareness of GANs , Honglin He*, Zhuoqian Yang*, Shikai Li, Bo Dai, Wayne Wu Project Page: https://orthoplanes.github.io/	ICCV 2023
	[5] TransMoMo: Invariance-Driven Unsupervised Video Motion Retargeting , Zhuoqian Yang*, Wentao Zhu*, Wayne Wu*, Chen Qian, Qiang Zhou, Bolei Zhou, Chen Change Loy, Project Page: https://inrainbws.github.io/transmomo	CVPR 2020
	[6] MEAD: A Large-Scale Audio-Visual Dataset for Emotional Talking Face Generation , Kaisiyuan Wang*, Qianyi Wu*, Linsen Song*, Zhuoqian Yang, Wayne Wu, Chen Qian, Ran He, Yu Qiao, Chen Change Loy, Project Page: https://wywu.github.io/projects/MEAD/MEAD.html	ECCV 2020
RESEARCH EXPERIENCE	Shanghai AI Laboratory, Research Engineer Topic: 3D-Aware Representation and Generation Supervisor: <i>Dr. Bo Dai</i> and <i>Dr. Wayne Wu</i> ▪ Proposed one of the first 3D-aware generative adversarial network 3DHumanGAN that synthesizes full-body human images; achieved pose-conditioned 3D-aware synthesis of full-body images with image quality comparable to that of 2D GANs. ▪ Proposed a novel hybrid implicit-explicit volumetric representation Orthoplanes for neural rendering of 3D scenes; significantly improves quality and view-consistency of rendering on large view-angles.	Shanghai, CN Mar 2021 - Jul 2023
	CMU and Fujitsu Research of America, Master's Student	Pittsburgh, PA, US

Topic: Semantic Facial Image Manipulation using 2D/3D Modalities, *sponsored capstone project*
 Supervisor: *Dr. Laszlo Jeni and Dr. Koichiro Niinuma* May 2020 - Dec 2020
 Presentation: <https://drive.google.com/file/d/1UbTcLudyGlr4OiP10rQ53OjattXGkA5B>

- Built a facial expression manipulation model to generate photorealistic images conditioned on FACS.
- Designed a two-stage pipeline: (i) manipulate image geometry using 3D information of the face, (ii) synthesize facial-expression-induced textures such as wrinkles.
- Achieved 19% improvement in FACS Expression Accuracy and 12% improvement in FID.

Intelligent Computing and Machine Learning Lab, Beihang University, Research Student Beijing, CN
Topic: Visual Quesion Answering
 Supervisor: *Prof. Zengchang Qin* Jul 2018 - Dec 2018

- Designed a graph neural network approach to enable agents to reason visual relationships on scene graphs.
- Introduced prior knowledge of visual relationships via contrastive-learned embeddings constrained by visual context and language priors.
- Improved performance in questions that require relational reasoning.

Engineering Research Center of GIS Technology, Yunnan Normal University, Research Student Kunming, CN
Topic: Non-Rigid Image Registration
 Supervisor: *Prof. Yang Yang* Mar 2017 - Dec 2017

- Designed a dynamic Gaussian component density to progressively exploit available image information and provide sufficient reliable correspondences for image registration.
- Devised a VGG-pyramid-feature-based non-rigid image registration method;
- Devised a space curvature preservation to improve the plausibility of estimated transformation.
- Improved RMSE by 20% on remote sensing images with temporal appearance changes.

AWARDS

- EDIC PhD Fellowship, CHF 54'000, EPFL Mar 2023
- First Prize Scholarship for Academic Performance (Top 5%), Beihang University Dec 2016

ACADEMIC SERVICES
Reviewer: CVPR, ECCV, AAAI, ICLR, ACM MM
Volunteer, ICCP 2024 Lausanne, CH

Teaching Assistant, Beihang University
 Course *Introduction to Software Engineering* Mar 2018 – Jun 2018
Teaching Assistant, EPFL
 Course *CS-341 Computer Graphics* Jan 2024 – May 2024
Teaching Assistant, EPFL
 Course *CS-233 Introduction to Machine Learning* Jan 2026 – May 2026

TALKS
Weight Space Representation Learning via Neural Field Adaptation Feb 2026

- AI:ML Group Seminar, University of St. Gallen