

# Zhuoqian Yang

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EDUCATION	<b>Carnegie Mellon University</b> , Robotics Institute	Pittsburgh, PA
	▪ M.S. in Computer Vision   Cumulative GPA: 4.11/4.3	Aug 2019 – Dec 2020
	<b>Beihang University</b> , School of Software Engineering	Beijing
	▪ B.E. in Software Engineering   GPA: 88.1/100, Overall Ranking: 6/149	Sep 2015 – Jun 2019
SELECTED PUBLICATIONS	[1] Zhuoqian Yang*, Wentao Zhu*, Wayne Wu*, Chen Qian, Qiang Zhou, Bolei Zhou, Chen Change Loy, “TransMoMo: Invariance-Driven Unsupervised Video Motion Retargeting,” accepted in CVPR 2020. * denotes equal contribution.	
	[2] Zhuoqian Yang, Yang Yang, Kun Yang, Ziquan Wei, “Non-rigid image registration with dynamic Gaussian component density and space curvature preservation,” IEEE Transactions on Image Processing, 28(5), 2584-2598.	
	[3] Zhuoqian Yang, Tingting Dan, Yang Yang, “Scene Graph Reasoning with Prior Visual Relationship for Visual Question Answering,” in ICIP 2020.	
CAPSTONE PROJECT	<b>Semantic Facial Image Manipulation using 2D/3D Modalities</b> , Sponsored by Fujitsu	
	Supervisor: <i>Dr. Laszlo Jeni</i>	Ongoing since Feb 2020
EXPERIENCE	▪ Building a GAN-based framework for FACS-based expression manipulation of photorealistic face images.	
	▪ Exploring linear and non-linear 3D morphable models to establish semantic correspondence in 2D facial images in an end-to-end manner.	
	<b>SenseTime</b> , Research Intern	Beijing
	<b>TransMoMo: Invariance-Driven Unsupervised Video Motion Retargeting</b>	
RESEARCH	Supervisor: <i>Wayne Wu</i>	May 2019 - Nov 2019
	▪ Designed an autoencoder framework to learn latent representations of human motion from unpaired videos.	
	▪ Achieved unsupervised representation disentanglement by exploiting invariance properties of three orthogonal factors of variation including motion, structure, and view-angle.	
	<b>Scene Graph Reasoning with Prior Visual Relationship for Visual Question Answering</b>	
	Supervisor: <i>Assoc. Prof. Zengchang Qin</i>	Jul 2018 - Dec 2018
	Intelligent Computing and Machine Learning Lab, Beihang University Beijing	
	▪ Designed a graph neural network approach to enable agents to reason visual relationships on scene graphs.	
	▪ Introduced prior knowledge of visual relationships via visual relationship metric learning. A deep semantic space constrained by visual context and language priors is learned for visual relationships.	
	<b>Multi-Temporal Remote Sensing Image Registration Using Deep Convolutional Features</b>	
	Supervisor: <i>Assoc. Prof. Yang Yang</i>	Jan 2018 - Apr 2018
	Engineering Research Center of GIS Technology in Western China, Yunnan Normal University Kunming	
	▪ Proposed a VGG-pyramid feature based multi-temporal remote sensing image registration method.	
	▪ Improved RMSE by 20% on remote sensing images with temporal appearance changes.	
	<b>Non-rigid Image Registration with Dynamic Gaussian Component Density and Space Curvature Preservation</b>	
	Supervisor: <i>Assoc. Prof. Yang Yang</i>	Mar 2017 - Dec 2017
	Engineering Research Center of GIS Technology in Western China, Yunnan Normal University Kunming	
	▪ Designed a dynamic Gaussian component density to progressively exploit available image information and provide sufficient credible correspondences for image registration.	
AWARDS & SCHOLARSHIPS	▪ Devised a space curvature preservation to improve the plausibility of estimated transformation.	
	▪ First Prize Scholarship for Academic Performance (Top 5%), Beihang University	Dec 2016
	▪ Excellent Student, Beihang University	Dec 2016

