Yu Zhang, Ph.D.

PERSONAL
INFORMATION

Date of birth: April 26, 1990
Phone: +8615801382736
Email: zhangyulb@gmail.com
Personal website: https://zhangyulb.github.io

WORK
EXPERIENCE

SenseTime Research, Beijing

Senior Researcher, July 2018 - Present
⋄ 3D video synthesis via deep learning and stereo geometry
⋄ Gaze understanding and synthesis with GANs

Robot and Automonous Driving Lab, Baidu Research, Beijing

Research Intern, March 2018 - July 2018
⋄ Semantic understanding of highway road scenes for automonous driving
⋄ Point cloud rendering and understanding for high-fidelity data synthesis

EDUCATION

Beihang University, Beijing

Ph.D. Candidate, Computer Science, Sept. 2012 - July 2018, Supervisor: Prof. Qinping Zhao
⋄ Various optimization frameworks for weakly supervised video object segmentation
⋄ Instance-level video segmentation with end-to-end deep learning
⋄ And-or graph representation and inference for video surveillance
⋄ Visual saliency; 3D scene understanding; Image co-analysis

B.Eng., Computer Science and Engineering, Sept. 2008 - July 2012, GPA - 3.81/4.0

SHORT
BIOGRAPHY

Currently I work as a senior researcher at SenseTime. During my career, I am broadly interested in visual understanding and processing problems with principled learning/optimization frameworks. At SenseTime, I am in particular interested in combining 3D geometry and vision/learning techniques to make medias captured by daily devices easier to be understood, manipulated, and created.

I received my Ph.D. degree from Beihang University in 2018, under the supervision of Prof. Qinping Zhao and Prof. Bin Zhou. I also work closely with the CVTEAM led by Prof. Jia Li. In my Ph.D. years, I spent most efforts on developing learning and optimization frameworks for segmenting video objects in weakly supervised manner.

SELECTED
PUBLICATIONS

* denotes the work that I supervised or extensively engaged in.

Feixiang Lu, Bin Zhou, **Yu Zhang***, Qinping Zhao. Realtime 3D Scene Reconstruction with Dynamically Moving Object using a Single Depth Camera. *Computer Graphics International (CGI), 2018.* (**Best Paper Award**)

Feixiang Lu, Bin Zhou, Feng Lu, **Yu Zhang***, Xiaowu Chen, Qinping Zhao. Reconstructing Non-rigid Object with Large Movement using a Single Depth Camera. *Computer Aided Geometric Design (CAGD), 2018*

Yu Zhang, Xiaowu Chen, Jia Li, Wei Teng, Haokun Song. Exploring Weakly Labeled Images for Video Object Segmentation with Submodular Proposal Selection. *IEEE Transactions on Image Processing (TIP), 2018.*

Changqun Xia, Jia Li, Xiaowu Chen, Anlin Zheng, **Yu Zhang**. What is and What is not a Salient Object? Learning Salient Object Detector by Ensembling Linear Exemplar Regressors. *IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2017.* (**Spotlight, 8% acceptance**)

Yu Zhang, Xiaowu Chen, Jia Li, Chen Wang, Changqun Xia. Semantic Object Segmentation in Tagged Videos via Detection. *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2017.*

Yafei Song, Xiaowu Chen, Xiaogang Wang, **Yu Zhang**, Jia Li. 6-DOF Image Localization from Massive Geo-tagged Reference Images. *IEEE Transactions on Multimedia (TMM), 2016.*

Yu Zhang, Wei Teng, Xiaowu Chen, Jia Li, Zhiqiang He. Local Shape Transfer for Image Co-segmentation. *British Machine Vision Conference (BMVC), 2016.* (***Oral, 10% acceptance***)

Yu Zhang, Xiaowu Chen, Liang Lin, Changqun Xia, High-Level Representation Sketch for Video Event Retrieval. *SCIENCE CHINA Information Sciences, 2016.*

Yafei Song, Xiaowu Chen, Xiaogang Wang, **Yu Zhang**, Jia Li. Fast Estimation of Relative Poses for 6-DOF Image Localization. *IEEE International Conference on Multimedia Big Data (BigMM), 2015.* (***Best Paper Award***)

Han Zhang, Xiaowu Chen, **Yu Zhang***, Jia Li, Qing Li, Xiaogang Wang. Cuboids Detection in RGB-D Images via Maximum Weighted Clique. *International Conference on Multimedia & Expo (ICME), 2015.*

Yu Zhang, Xiaowu Chen, Jia Li, Chen Wang, Changqun Xia. Semantic Object Segmentation via Detection in Weakly Labeled Video. *International Conference on Computer Vision and Pattern Recognition (CVPR), 2015.* (***Oral, 3.3% acceptance***)

Qing Li, Xiaowu Chen, Yafei Song, **Yu Zhang***. Geodesic Propagation for Semantic Labeling. *IEEE Transactions on Image Processing (TIP), 2014.*

Kai Jiang, Xiaowu Chen, **Yu Zhang***, Qinping Zhao. Video Event Representation and Inference on And-Or Graph. *Computer Animation and Virtual Worlds, 2012.*

AEWARDS & CERTIFICATES	- Reviewer for TIP, TMM, ACCV - The Academic Excellence Foundation of BUAA for PhD Students, Beihang University, 2017 - The National Graduate Scholarship, 2015 - The Graduate Innovation Award, School of Computer Science, Beihang University, 2014 - The Changzhao Qian & Xingyuan Shen Scholarship (1st Prize), Beihang University, 2011 - The Excellent Student Award, Beihang University, 2010 - 2011 - The Undergraduate Mathematical Contest (1st Prize, Rank 1st), Beihang University, 2009 - The National Undergraduate Mathematical Contest (Second Prize in Beijing Region), 2009
PROFESSIONAL SKILLS	- Specialize in machine learning for computer vision, and graph/numerical optimization - Familiar with Linux/Windows, Python/Matlab/C++, OpenCV/Qt - Familiar with deep learning libraries Tensorflow/Pytorch/MXNet/Caffe - Good at scentific writing & presentation - Fluent professional English
Interests	- Chinese calligraphy level 4 - Chinese electronic organ level 6