ZHUO SU

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EDUCATION

M.S., Department of Automation, Tsinghua University, China. *GPA: 3.89/4* 08/2018 - Present

B.E., Department of Automation, Northeastern University, China. *GPA: 4.18/5* 09/2014 - 06/2018

RESEARCH INTERESTS

Performance Capture, Reconstruction of Dynamic Scenes, Photorealistic 3D Modeling

RESEARCH PROJECTS

Robust monocular volumetric Capture with Data-driven Cues 05/2019 - 03/2020

- Introducing various data-driven visual cues to volumetric performance capture under monocular setting without pre-scanned template.
- Eliminating the tedious and orchestrated self-scanning constraint by introducing data-driven huamn occupancy learning.
- An effective robust performance capture schem with pose, shape and parsing priors, which can handle challenging human motions with reinitialization ability.

Performance Capture using Sparse and Unstructured Kinects 04/2018 - 04/2019

- An unstructured multiview system using only three commerical RGBD sensors for real-time human performance capture.
- A non-rigid skeleton warping scheme that enable online calibration and synchronization for unstructured setup.
- A dynamic atlas texturing scheme for a high-quality appearance reconstruction in real-time.

Calibration of RGBD cameras using SLAM 11/2017 - 03/2018

- Calibrate 360° outward RGBD cameras based on an off-the-shelf SLAM method with global consistency.

Artificial landmark design for UAV localization and landing 04/2016 - 05/2017

- Designing an artificial landmark with color and hierachy information for accurate localization and landing of UAV.

PUBLICATIONS

Zhuo Su, Lan Xu, Zerong Zheng, Tao Yu, Yebin Liu, Lu Fang, "RobustFusion: Human Volumetric Capture with Data-driven Visual Cues using a RGBD Camera", European Conference on Computer Vision (ECCV, Spotlight), 2020

Lan Xu, **Zhuo Su**, Lei Han, Tao Yu, Yebin Liu, Lu Fang, "UnstructuredFusion: Realtime 4D Geometry and Texture Reconstruction using Commercial RGBD Cameras", IEEE Transactions on Pattern Analysis and Machine Intelligence (PAMI), 2019.

Wen Fei, **Zhuo Su**, Changfu Zhou, "Artificial landmark design and detection using hierarchy information for UAV localization and landing", Chinese Control And Decision Conference (CCDC), 2017

Haina Wu, **Zhuo Su**, Kai Luo, Qi Wang, XianZhong Cheng, "Exploration and Research on the Movement of Magnus Glider", Physical Experiment of College (A Chinese Journal), 2015

AWARDS

Excellent Bachelor Thesis award, Northeastern University (NEU) 06/2018

Excellence award for National Undergraduate Innovation Program, NEU 06/2017

Outstanding Graduate and City's Excellent Undergradute, NEU 2017 - 2018

National, Mayor's and 4× First Class Scholarships, NEU 2014 - 2018

SKILLS

C & C++ (OpenCV, OpenGL, CUDA, Eigen, ...), Python (Pytorch), Matlab, LaTeX