Haidong Zhu

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EDUCATION

• Tsinghua University

B.E. in Electrical Information Science and Technology; GPA: 3.62

Beijing, Tsinghua

Aug. 2015 - June. 2019 (expected)

• Harvard University

Visiting Student and Research Assistant

Cambridge, MA Jun. 2018 - Sept. 2018

SKILLS

• Programming Skills: C/C++, MATLAB, Python, Git, Matlab, Verilog

• Deep Learning Frameworks: Caffe, PyTorch, TensorFlow, Keras

Manuscripts

• Yueqi Duan, Haidong Zhu, Chaojian Li, Jiwen Lu, and Jie Zhou, Unsupervised 3D Feature Learning by Point Cloud Completion. Submitted to IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019

• Brian Matejek, Daniel Haehn, Haidong Zhu, Donglai Wei, Toufiq Parag, and Hanspeter Pfister, Biologically-Constrained Graphs for Global Connectomics Reconstruction , Submitted to IEEE Conference on Computer Vision and Pattern Recognition (CVPR), 2019

• Wenzhao Zheng, Jiwen Lu, Zhaodong Chen, Haidong Zhu, and Jie Zhou, Hardness-Aware Deep Metric Learning, Submitted to Advances in Neural Information Processing Systems (NIPS), 2018

Research Projects

• i-Vision Group, Tsinghua University

Beijing, China

Research Assistant

Feb. 2018 - present

- Metric Learning: Employed hardness-aware strategy to improve efficiency and result of metric learning
- o 3D Vision: Investigated point cloud completion and autoencoder framework for 3D reconstruction task
- o Self-supervised Learning: Employed self-supervision strategy as pretext for 3D vision task improvement
- Visual Computing Group, Harvard University

Cambridge, MA

Research Assistant

Jun. 2018 - Sept. 2018

- o 3D segmentation: Improved the 3D segmentation pipeline for connectomic projects and generated state-of-the-art result on the same quality of affinities compared with present methods, got 3^{rd} place on SNEMI3D public dataset
- Graphs Improvement: Set up graph improvement step for connectomic segmentation error correction
- Information Cognition and Intelligent System Lab, Tsinghua University

Beijing, China

Research Assistant

Jun. 2017 - Jan. 2018

- Liveness Detection System: Embedded the liveness detection strategy on mobile chips and systems
- o Big Data System: Set up the human identity system for huge information management and relation prediction
- Image Caption: Studied the overfitting cases in image captioning models

PROJECTS

- Structural Relational Reasoning for Point Clouds: Introduced structural relational network (SRN) for reasoning
- Competition and Lecture Management System: Lecture management system with wechat and website version
- Video-audio Similarity Evaluation System: Evaluating similarity between given audio and visual fragments

AWARDS AND HONORS

Scholarship for Academic Excellence, 2018

3rd place in SNEMI3D challenge, 2018

Scholarship for Social Practice Excellence, 2016/2017

Scholarship for Voluntary and Public Excellence, 2016

3rd Prize for the 32rd National Undergraduate Physics Olympic, 2016