

Jiaqi Tan

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Education

Simon Fraser University, Canada

Sep. 2019 - Now

MASTER OF SCIENCE, COMPUTING SCIENCE (86.5/100.0)

Shenzhen University, China

Sep. 2015 - June. 2019

BACHELOR DEGREE, COMPUTER SCIENCE (85.1/100.0)

Publications

Mirror3D: Depth Refinement for Mirror Surfaces

Paper | Video | Website

JIAQI TAN, WEIJIE LIN, ANGEL X. CHANG, MANOLIS SAVVA

Conference on Computer Vision and Pattern Recognition (CVPR), 2021

Selecting the Effective Regions for Gait Recognition by Sparse Representation

Paper

JIAQI TAN, JIAWEI WANG, SHIQI YU

Chinese Conference of Biometric Recognition (CCBR), 2018

Work Experience

Mirror3D: Depth Refinement for Mirror Surfaces

Simon Fraser University

MASTER STUDENT, SUPERVISOR: **MANOLIS SAVVA**

Sep. 2020 - Now

- Proposed a 3D plane extraction-based architecture to segment and locate 3D mirror planes in 3D indoor scenes.
- Proposed and benchmarked RGB and RGBD based mirror plane prediction.
- Evaluated depth completion and depth estimation approaches on the mirror plane prediction task.
- Proposed a 3D mirror annotation tool based on Open3D interface to correct erroneous depth values introduced by depth sensors.
- Transformed Structure3D synthetic panoramas into perspective images, 3D meshes, and point clouds.

Gait Recognition

Shenzhen University

UNDERGRADUATE, SUPERVISOR: **SHIQI YU**

March. 2018 - June. 2019

- Used PCA (machine learning algorithm) to select the effective features from occluded gait energy image.
- Improved the gait recognition accuracy under clothing and carry-on occlusions by 20%.

Human Body Detection and Emotion Recognition

SenseTime lab

RESEARCH INTERN, SUPERVISOR: **CHENHAO LIN**

Feb. 2019 - June. 2019

- Added negative samples and fine-tuned NMS threshold to improve precision and recall for human body detection.
- Pruned ResNet50 to one-eighth of total model parameters to improve the speed of training.

Multi-label Classification and Object Detection

SenseTime lab

RESEARCH INTERN, SUPERVISOR: **CHENHAO LIN**

Oct. 2018 - Feb. 2019

- Preprocessed large-scale data to improve classification and detection metrics such as mAP, recall and Top-5 accuracy.
- Used loss function from *Gradient Harmonized Single-stage Detector* to balance large-scale data during training.

Honors & Awards

- 2021 Recipient of Graduate Fellowship, Simon Fraser University
- 2019 Recipient of Excellent Thesis Award, Shenzhen University
- 2017-18 Recipient of Shuangchuang Scholarship, Shenzhen University
- 2017 Recipient of Star Student Scholarship, Shenzhen University
- 2017 Recipient of National Scholarship, China Scholarship Council

Position of Responsibility

Shenzhen University Hip Hop Club

Shenzhen University

COORDINATOR

June. 2016 - June. 2017

- Organized renowned dance events like SZU Hip Hop Club opening event, SZU Hip Hop Club YA, etc
- Collected and managed funding from outside organization (Red Bull, Shenzhen BBR club, etc)