REN Xuanchi, Tim

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EDUCATION

The Hong Kong University of Science and Technology Sep 2017-Present
BEng in Computer Science & BSc in General Math | **GPA:** 3.78 / 4.3 (**CS:** 3.85 / 4.3)

- **Honors:** Dean's list for four consecutive terms(TGA>3.7);
- **Relevant Coursework:** Programming/ Deep Learning/ Computer Vision/ Computer Graphics/ Optimization for machine learning/ Algorithm

École polytechnique fédérale de Lausanne (EPFL) Feb 2020-June 2020
Computer Science | Exchange program

PROJECT EXPERIENCE

Predicting the waiting time at Bus Stop **Hong Kong**
Team Leader Sep 2018 – Jan 2019

- A subproject of a prodigious project "Pulse of HKUST" to predict the waiting time at the bus stop
- Used Pandas to proceed the data and Processed the data to fit the model
- Time Series Prediction with LSTM Recurrent Neural Networks in Python

Innovate the Retail Industry with Automatic Checkout System **Hong Kong**
Researcher Mentor: Qifeng Chen Feb 2019 – May 2019

- Dealing with the dataset of retail industry published by Megvii
- Improved the data augmentation phase by using a deep learning based salient object detection algorithm
- Used image inpainting method to render high quality real-world images
- Used FPN as our network structure to train the detector and achieved 64.32% checkout accuracy

PUBLICATION

Music-oriented Dance Video Synthesis with Pose Perceptual Loss
Xuanchi Ren, Haoran Li, Zijian Huang, Qifeng Chen
Area: Human motion synthesis, Computational Photography
Under submission, 2020

Anonymous Submission
Xuanchi Ren*, Zian Qian*, Qifeng Chen
Area: Low-level vision
Under submission, 2020

RESEARCH EXPERIENCE

Dance Video Synthesis conditioned on Music **Hong Kong**
Researcher Mentor: Qifeng Chen May 2019 – Nov 2019

- Presenting a learning-based approach with pose perceptual loss for automatic music video generation.
- Utilizing two discriminators and deploying attention module mechanism, our framework can generate a coherent dance skeleton sequence that matches the length, rhythm, and the emotion of a piece of music
- To evaluate our model, we also propose a novel cross-modal evaluation that measures the similarity between music and a dance skeleton sequence.

Video Deblurring **Hong Kong**
Researcher Mentor: Qifeng Chen Nov 2019 – Mar 2020

- Presenting a self-supervised video deblurring pipeline without the need of a large training dataset
- Combined with meta-learning, our pipeline can be accelerated by about 100 times and also achieve the state-of-the-art performance
- Publish a dataset containing 70 real-world videos with motion blur that can be used for evaluation on the deblurring task

COMPETITION EXPERIENCE

RoboMaster Team *–participant in RoboMaster Robotics Competition, held by DJI*
Teammate Sep 2017 – Sep 2018

- Winning the Champion of RoboMaster Oversea Regional Competition 2018
- Participant in the Final Tournament of RoboMaster Robotics Competition 2018
- Served as a mechanical engineer in the Team, with SolidWord skill and software skill
- Discussed and designed the robots and made them functional

SKILLS, ACTIVITIES & INTERESTS

Languages: English (Fluent); Mandarin (Native)
Technical Skills: C++ (Proficient); JavaScirpt(Familiar); Python(Proficient); Pytorch(Proficient); Tensorflow(Familiar);