Chuanyang Zheng

Undergraduate Student
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Google Scholar Home Page GitHub

Research Interests

Computer Vision, Machine Learning, Security

Academic Position

Hong Kong Baptist University Dec.2019 - now

Pattern Recognition and Machine Learning Laboratory. Work With Xiangyuan Lan – Research Assistant

Education

Hong Kong Baptist University Sept.2017 – now

B.SC., Computer Science

– CGPA (in the past four semesters): 3.78

– Major GPA: **3.89**

Major Courses

MATH1005 Calculus(A)	COMP1005 Essene of Computing(A-)
MATH 2005 Calculus, Probability, and Statistics for Computer Science(A-)	MATH1205 Discrete Mathematics(A)
COMP2007 Object Oriented Programming(A-)	COMP2206 Computer Organization(A)
MATH2207 Linear Algebra (DT)	COMP2215 Data structure and algorithms(A)
COMP2216 Database Management(A)	COMP2217 Operating System(A)
COMP3015 Data communication and Networking (DT)	COMP3047 Software Engineering (DT)
COMP4015 Artificial Intelligence and Machine Learning (DT)	

Note: DT is equal to A range but not calculated in GPA

Awards and Honors

C.V. Starr Scholarship(20K HKD) 2020

Outstanding Student Scholarship(6K HKD) 2019
Summer Research Scholarship(8K HKD) 2019
Nominated to Visit McGill University (**top 1%,100K HKD**) 2019
Undergraduate Scholarship in Computer Science(12K HKD) 2018
President's Honour Roll 2017 semester 2-Now
Dean's List 2017 semester 1

Journal Publications

1. Qikun, Z., Yongjiao, L., Yong, G., **Chuanyang, Z.**, Xiangyang, L., & Jun, Z. (2019). Group Key Agreement Protocol Based on Privacy Protection and Attribute Authentication. IEEE Access, 7, 87085-87096**.**

Conference Publications

1. Nonnegative Residual Matrix Factorization for Community Detection. Yulong Pei, Cong Liu, **Chuanyang Zheng**, Long Chen. APWeb-WAIM 2020. (**Submitted**)

Work Experiences

Student Research Assistant at Hong Kong Baptist University May 2019 – Sept 2019

Computer Vision and Machine Learning Laboratory

- worked on cross-modality person re-identification. Leveraging cycleGAN for data augmentation. By our method, given N images, we can use 4*N images by generated identity images, fake images, and cycle-consistent images.
- Supervisor: Pong Chi Yuen Mang Ye
- Baseline:46.8% Ours:66.78% [pdf]

COMP Artificial Intelligence And Machine Learning October 2019 – December 2019

- worked on CycleGAN. Develop Multiple-CycleGAN. [Report]
- CycleGAN only cycles once. According to Squeeze Theorem, we add additional cycles by regards cycle-consistent images as real images. There are two advantages compared to the original CycleGAN. First, according to Squeeze Theorem, the cycle-consistent should be much closer to the original real images. Second, we can get more images as input because we regard cycle-consistent images as real images

COMP Medical Images And Its Application October 2019 – December 2019

- worked on Faster R-CNN
- Object: given liver lesion images, find the lesion.
- Two Improvement. First(Preprocess), outside the liver, CT images have a lot of useless pixels in which the pixel value is 0. We use a simple traditional algorithm to find the liver in an image before giving it to Faster R-CNN. Second(New FPN), we add ResNet and DenseNet idea to Feature Pyramid Network.
- Performance(ablation study): baseline(Faster R-CNN): 60% proposed Model:69.28% deleteNewPFN(use original FPN+Preprocess):68.5% deletePreprocess:
- Report. Initial Proposal: