Zhen CHEN Curriculum Vitae

# Zhen CHEN

Room 2325, AC1, City University of Hong Kong, Kowloon, Hong Kong.

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#### **EDUCATION**

City University of Hong Kong (CityU), Hong Kong SAR

Sep. 2018 - Present

Ph.D. Student in Electrical Engineering (EE)

Supervisor: Prof. Yixuan Yuan

At USTC during Sep. 2018 - Jun. 2019 according to the Collaboration Scheme

University of Science and Technology of China (USTC), Hefei, China Sep. 2016 - Jun. 2019

M.S. in Electronic Engineering and Information Science (EEIS)

MOE-Microsoft Key Laboratory of Multimedia Computing and Communication

Supervisor: Prof. Weiping Li and Prof. Zhibo Chen

Thesis: Acceleration, Compression and Evaluation Methods on Deep Neural Networks

Xi'an Jiaotong University (XJTU), Xi'an, China

Sep. 2012 - Jun. 2016

B.E. in Information Engineering (IE)

GPA: 89.76/100, Top 5% (Honor: Outstanding Graduates Award)

#### **EXPERIENCE**

iFLYTEK, Hefei, China

Jul. 2019 - Aug. 2019

Researcher in Research and Development Group

Histopathology images-based segmentation

Hong Kong Baptist University, Kowloon, Hong Kong

Jul. 2016 - Aug. 2016

Intern at Department of Computer Science (CS)

Supervisor: Prof. Li Chen

CASIA, Beijing, China

Jun. 2015 - Aug. 2015

Intern at National Laboratory of Pattern Recognition Supervisor: Prof. Stan Z. Li and Prof. Zhen Lei

#### RESEARCH INTERESTS

Medical Image Analysis, Neural Network Acceleration, Machine Learning.

My research interests include classification and segmentation for histopathology images and superresolution.

## PUBLICATIONS ( GOOGLE SCHOLAR)

- 1. Xiaoqing Guo, **Zhen Chen**, Yixuan Yuan. "Complementary Network with Adaptive Receptive Fields for Melanoma Segmentation." *IEEE International Symposium on Biomedical Imaging* (ISBI 2020), Iowa City, USA.
- Zhen Chen, Zhibo Chen, Jianxin Lin, Sen Liu, Weiping Li. "Deep Neural Network Acceleration Based on Low-Rank Approximated Channel Pruning." IEEE Transactions on Circuits and Systems I: Regular Papers (TCAS-I), 2020, invited paper from ISCAS 2019.

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3. Zikun Liu, **Zhen Chen**, Weiping Li. "Importance-Aware Filter Selection for Convolutional Neural Network Acceleration." 2019 IEEE International Conference on Visual Communications and Image Processing (VCIP 2019), Sydney, Australia.

- 4. **Zhen Chen**, Jianxin Lin, Sen Liu, Zhibo Chen, Weiping Li, Jin Zhao, Wei Yan. "Exploiting Weight-Level Sparsity in Channel Pruning with Low-Rank Approximation." 2019 IEEE International Symposium on Circuits and Systems (ISCAS 2019), Sapporo, Japan.
- 5. **Zhen Chen**, Jianxin Lin, Sen Liu, Jun Xia, Weiping Li. "Decouple and Stretch: A Boost to Channel Pruning." 2018 IEEE 37th International Performance Computing and Communications Conference (IPCCC 2018), Orlando, USA.

#### RESEARCH EXPERIENCES

## Automatic Staining for Histopathology Images

Aug. 2019 - Present

Image translation from fluorescence images to H&E stained images

#### **Histopathology Images Classification**

Apr. 2019 - Presnet

- Classification for H&E stained tissue images
- Super-resolution for histopathology images

## **Histopathology Images Segmentation**

Jun. 2019 - Aug. 2019

• Segmentation for colonoscopy tissue images

## Convolutional Neural Network Acceleration

Sep. 2017 - Jun. 2019

Mar. 2015 - May 2017

- Low-rank approximated channel pruning for CNNs acceleration
- Reinforcement learning-based pruning for CNNs acceleration
- Global perspective evaluation for efficiency of acceleration and compression algorithms

## Virtual Reality

- Saliency prediction in virtual reality environment
- Panorama image stitching

#### SELECTED AWARDS

- Xi'an Jiaotong University Outstanding Graduates Award
- Outstanding Student Leaders Award
- Outstanding Students Award (twice)
- National Inspirational Scholarship
- Wenyuan Pan Scholarship

#### PROFESSIONAL ACTIVITIES

#### **TPC** Memeber

• WoWMoM 2019 CCNCPS Workshop

#### **Technical Reviewers**

• GLOBECOM 2018

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## LEADERSHIP

•	Vice-president of Graduate Students Union, School of Information Science, USTC	2017 - 2018
•	Vice-president of Senior Students Helping Club, Wenzhi College, XJTU	2014 - 2015
•	Leader of XJTU English Club	2013 - 2014