Xiaoqing GUO Curriculum Vitae

# Xiaoqing GUO

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

Email: xiaoqingguo1128@gmail.com & Web: https://Guo-Xiaoqing.github.io/

### **EDUCATION**

City University of Hong Kong (CityU), Hong Kong

Sep. 2018 - Present

Ph.D. in Electrical Engineering (EE), GPA: 3.925/4

Supervisor: Prof. Yixuan Yuan

Beihang University (BUAA), Beijing, China

Sep. 2014 - Jun. 2018

B.E. in Biomedical Engineering (BME), GPA: 3.64/4

Supervisor: Prof. Yu Wang (Honor: Outstanding Undergraduate Thesis Award)

### PREVIOUS WORK EXPERIENCE

Tsinghua University, Beijing, China

Sep. 2017 - Jul. 2018

Research Assistant in Department of Electrical Engineering (EE)

Supervisor: Prof. Yongfeng Huang

### RESEARCH INTERESTS

Medical Image Analysis, Deep Learning.

My research interests include abnormality recognition and segmentation, brain tumor diagnosis and survival prediction. Recently, I am dedicated to making adequate use of unannotated data.

# PUBLICATIONS ( GOOGLE SCHOLAR)

- 1. **Xiaoqing Guo**, Yixuan Yuan. "Triple ANet: Adaptive Abnormal-aware Attention Network for WCE Image Classification." *The 22nd International Conference on Medical Image Computing and Computer Assisted Intervention (MICCAI 2019)*, Shenzhen, China. (Early Accept)
- Yixuan Yuan, Wenjian Qin, Xiaoqing Guo, Mark Buyyounouski, Steve Hancock, Bin Han, Lei Xing. "Prostate Segmentation with Encoder-Decoder Densely Connected Convolutional Network (ED-DenseNet)." The 16th IEEE International Symposium on Biomedical Imaging (ISBI 2019), Venice, Italy
- 3. Zhongliang Yang, **Xiaoqing Guo**, Ziming Chen, Yongfeng Huang, Yujin Zhang. "RNN-stega: Linguistic steganography based on recurrent neural networks." *IEEE Transactions on Information Forensics and Security (TIFS)*, 14(5): 1280-1295, 2019. (**Impact Factor: 6.211**)
- 4. Siyuan Shan, Wen Yan, **Xiaoqing Guo**, Eric I Chang, Yubo Fan, Yan Xu. "Unsupervised End-to-end Learning for Deformable Medical Image Registration." *arXiv*, https://arxiv.org/abs/1711.08608

#### PUBLICATIONS UNDER REVIEW

1. **Xiaoqing Guo**, Yixuan Yuan. "Semi-supervised WCE Image Classification with Adaptive Aggregated Attention." *IEEE Transactions on Medical Imaging (TMI)*.

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2. **Xiaoqing Guo**, Yixuan Yuan. "Anonymous" The 17th IEEE International Symposium on Biomedical Imaging (ISBI 2020).

# RESEARCH EXPERIENCES

# Automatic Diagnosis for Wireless Capsule Endoscopy Images

Sep. 2018 - Present

- Classification and localization for WCE images
- Abnormality detection based on attention mechanism
- Semi-supervised learning for WCE image analysis

# Diagnosis of Brain Tumor in MRI

Sep. 2018 - Present

- Automatic brain tumor segmentation
- Survival and grading prediction with incorporating clinical information

# Melanoma Segmentation for Dermoscopy Images

Jan. 2019 - Present

• Semi-supervised learning for automatic melanoma segmentation

# Coverless Text Steganography

Nov. 2017 - Jul. 2018

- Coverless information hiding based on recurrent neural networks
- Constructed a language model network to automatically generate a high-quality text according to a secret bit stream

# Medical Image Registration

Jan. 2017 - Jun. 2018

- 2D/3D (X-ray/CT) medical image registration using Convolutional Neural Network
- 2D (CT or MRI) medical image registration with unsupervised learning strategy

#### SELECTED AWARDS

- Outstanding Academic Performance Award (OAPA), City University of Hong Kong, 2019
- Research Tuition Scholarship (RTS), City University of Hong Kong, 2019 2020
- Honorable Mention, Mathematical Contest in Modeling (MCM), 2016
- Grand Prize, the 25th "Feng Ru Cup" Competition of Innovation, BUAA, 2015

## PROFESSIONAL ACTIVITIES

### **Technical Reviewers**

MICCAI 2019

## **Conference Presentations**

• ISBI 2018, Venice, Italy

Apr. 2019