# **XIAOQIAN SHEN**

# **CURRICULUM VITAE**

Address: Qianjin Road 2699#, Changchun, Jilin, China

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Enthusiastic 4th year undergraduate student seeking a master or doctoral position related to Computer

Science & Artificial Intelligence starting in Fall 2022

# **Education Background**

09/2018 - Present: undergraduate study, Major in Computer Science

Dept. of Computer Science and Technology, Jilin University, Changchun, China

GPA: 90.27/100 (3.73/4.0)

# **Research Experiences**

2021 Prof. Zhenghua Xu's group (Xu is an External D.Phil Supervisor of University of

Oxford), Hebei University of Technology, China

Project: Self-supervised Learning for medical image segmentation

✓ Learned contrastive learning and Multimodal Representation;

✓ Assisted in ablation study and fine-tuning models on downstream tasks.

2021 Prof. Yongfeng Huang's group, Tsinghua University, China

Project: Medical relation extraction for Chinese medicine instructions

✓ Mastered BERT and LSTM framework for text modeling and representations of characters;

✓ Built up a deep model incorporated with medical knowledge to better predict relations between entities.

2020 - Present

2020

Prof. Xiaoli Zhang's group, Jilin University, China

Project: Gaze correction for video chatting based on CNN

(Xiaoqian Shen as PI in the project)

✓ Proposed Gaze correction for video chatting to address virtual communication problems;

✓ Conducted the whole experimental process independently, including collecting data and building up sophisticated neural network.

Dr. Ye Zhu, Hebei University of Technology, China

Project: Image Splicing Location Based on Illumination Maps and Cluster Region Proposal Network

- ✓ Grasped Grey-Edge (GE) and Inverse-Intensity Chromaticity (IIC) to extract the inconsistent features and the mechanism of Feature Pyramid Network (FPN);
- ✓ Proposed Multiple Feature Pyramid Network (MFPN) to fuse the feature maps at multiple scale in bottom-up and top-down stages;

✓ Assisted in ablation experiments and robustness analysis.

#### **Awards**

- Academic Scholarship in Jilin University in the year of 2019 and 2020;
- The First Award in Jilin Provincial Final of English Writing Contest in 2020;
- The First Prize Award in the Preliminary Round of the 2020 "FLTRP·ETIC Cup" English Reading Contest;
- The Third Prize for the National University Student Social Practice and Science Contest on Energy Saving & Emission Reduction in 2020.

# Software Copyright and Publications

- 1. <u>Xiaoqian Shen</u>, A soft for eye gaze correction in video chat, Software Copyright in China: 2021SR0800889, 2021.
- 2. Tao Qi, Shan Qiu, <u>Xiaoqian Shen</u>, Haopu Chen, Shuai Yang, Hao Wen, Ya Zhang, Yuanqing Wu, Yongfeng Huang, KeMRE: Knowledge-enhanced medical relation extraction for Chinese medicine instructions, Journal of Biomedical Informatics, 120, 2021,103834.
- 3. Ye Zhu, <u>Xiaoqian Shen</u> (Co-first author), Shikun Liu, Gang Yan, Xiaoli Zhang, Image Splicing Location Based on Illumination Maps and Cluster Region Proposal Network, Applied Science, 2021, 11, 8437.
- 4. Jiaojiao Zhang, Shuo Zhang, <u>Xiaoqian Shen</u>, Zhenghua Xu, Thomas Lukasiewicz, Multi-ConDoS: Multimodality Contrastive Domain Sharing for Self-Supervised Medical Image Segmentation, submitted to AAAI, 2022.

#### Language Skills

08/2021 TOEFL R: 29 L: 27 S: 21 W: 27 Total: 104 (104/120) 02/2021 GRE V: 158 Q: 170 AW: 3.5 Total: 328 (328/340)

#### Academic skill

- **Programming:** Python, C/C++, Java, LaTex;
- Mathematics: Calculus, Linear Algebra, Probability and Statistics, Discrete Mathematics;
- Extensive experience in Data Structure and Algorithm Analysis, Database, Computer Network, Machine Learning.