# Zhe Chen

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### **Education**

Nanjing University, Nanjing, China

Sep. 2020 - Present

M.D. candidate in Computer Science and Technology, supervised by Prof. Tong Lu.

Zhejiang University of Science and Technology, Hangzhou, China

Sep. 2016 - Jun. 2020

B.E. in Software Engineering.

# Research Interests

Semantic Segmentation, Object Detection, Neural Style Transfer.

### Research Experiences

### • Ultra-high Resolution Neural Style Transfer

Mar. 2021

Proposed a versatile framework for ultra-high resolution style transfer under limited memory resources, termed URST, which can be easily plugged in most existing style transfer methods. Theoretically, it supports style transfer of arbitrary high-resolution images. The paper is currently in the review stage.

## • Remote Sensing Semantic Segmentation

Nov. 2020

Led a team to take part in *Remote Sensing Semantic Segmentation Task* in *National Artificial Intelligence Challenge* 2020, and tried to 1) solve the cross-domain problem and multi-level classification problem and 2) designed a lightweight network for real-time semantic segmentation. Our team finally secured the 1<sup>st</sup> place in the task.

# • Decorative Painting Customization Platform based on Neural Style Transfer

Feb. 2018

This is a project of *Innovation and Entrepreneurship Training Program for College Students*. Major contributions include: 1) Developed a new business process of decoration painting customization based on neural style transfer. 2) Deployed models on Android devices. 3) Improved processing of high-resolution images.

#### Contests

• National Artificial Intelligence Challenge (NAIC) 2020, Remote Sensing Semantic Segmentation Task,

### 1<sup>st</sup> Place, 1,000,000 RMB

Nov. 2020

• The 2<sup>nd</sup> China Gaofen Cup Beautiful Countryside Competition, Remote Sensing Crop Classification Task,

### 3<sup>rd</sup> Prize, 5,000 RMB

Apr. 2019

• National Undergraduate Service Outsourcing Competition 2018, Captcha Recognition Task,

2<sup>nd</sup> Prize, 2,000 RMB

May. 2018

#### Honors and Awards

• Outstanding Graduate of Zhejiang Province

May. 2020

• Zhejiang Provincial Government Scholarship

Sep. 2019

### **Publications**

- [1] **Zhe Chen**, Wenhai Wang, Enze Xie, Tong Lu, and Ping Luo. Towards ultra-resolution neural style transfer via thumbnail instance normalization. *arXiv* preprint *arXiv*:2103.11784, 2021.
- [2] **Zhe Chen**, Weifeng Ma, Nanfan Xu, Caoting Ji, and Yulai Zhang. Siameseccr: a novel method for one-shot and few-shot chinese captcha recognition using deep siamese network. *IET Image Processing*, 14(12):2855–2859, 2020.