## Zhikai Chen

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### **EDUCATION**

#### University of Electronic Science and Technology of China, Chengdu, China

Bachelor of Software Engineering

**GPA:** 3.62/4.0 **Overall GPA of Last Two Years**: 3.85/4.0

Xi'An JiaoTong University, Xi'An, China

Master of Software Engineering

Rank: 3rd in my major

#### **INTERN**

# Research Intern | Tencent Blade Team

Jul. 2020 - till Now

• Testing the Robustness of Face Recognition Systems In Black Box Settings.

Research Intern | Huawei Noah's Ark Lab

Jul. 2019 - Jul. 2020

- Studying Robustness of DL Models through Adversarial Examples.
- Using Adversarial Training to help the DL models more robust and gain a more powerful performance.

# RESEARCH PROJECTS

#### **Adversarial Attacks on Video Recognition System**

Jul. 2019 - Nov. 2019

- We are trying to use the information between adjacent frames to generate more powerful adversarial examples.
- We found that make the perturbations with smaller angular distance can enhance the attack ability.

#### Attacking FaceSwap with Adversarial Perturbations for Defense

Nov. 2019 - Apr. 2020

• We can disrupting FaceSwap system by adding imperceptible adversarial perturbations to the source image or target image, the result of normal FaceSwap system can be corrupt.

#### **Defending Deepfakes against Disrupting Images**

Apr. 2020 - Jul. 2020

- We transfer the disrupting method from facial expression and attribute change model to face swap model.
- We use a compare-based method to make a robust detection, and an elaborate reconstructor to help to deter the adversarial perturbations.

#### **Evaluating Robustness of Video Super-Resolution System**

Jul. 2020 - Oct. 2020

- We found the adversarial frames can transfer its attack to the adjacent frames, which helps us to propose a more effective method.
- We also do some advanced topics of VSR attack scene(e.g. change the texture of results through modifying the adversarial perturbations).

# HONORS AND AWARDS

- 2018-2019 Outstanding Scholarship
- 2017-2018 Outstanding Postgraduate Award
- 2016-2017 National Encouragement Scholarship
- 2017 Challenge Cup national Undergraduate Curricular Academic Science and Technology, Second Prize
- 2015-2016 The Third Prize Scholarship

# **Publications/Preprints**

 Zhikai Chen, Lingxi Xie, Shanmin Pang, Yong He and Qi Tian. Appending Adversarial Frames for Universal Video Attack.

Accepted by WACV2021