

Kejiang Chen

Curriculum Vitae

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Education

- 09/2015–07/2020 **PhD of Information Security**, *University of Science and Technology of China*, Hefei, China, GPA-3.7/4.3.
supervised by Prof. Nenghai Yu and Prof. Weiming Zhang
- 09/2011–06/2015 **Bachelor of Communication Engineering**, *Shanghai University*, Shanghai, China, GPA-3.62/4.0.
supervised by Prof. Guorin Feng

Experience

- 07/2020–Now **Postdoc Researcher**, *University of Science and Technology of China*, Hefei, China.
Now Research in Information hiding and Deep learning security.
- 06/2019–12/2019 **Research Intern**, *Alibaba Group*, Hangzhou, China.
Member of the Alibaba Turing Lab. Research in adversarial examples.

Research

Steganography and Steganalysis
Adversarial Attack and Defense
Intellectual Property for Deep Models

Publications

- ★ **Kejiang Chen**, Yuefeng Chen, Hang Zhou, Chuan Qin, Xiaofeng Mao, Weiming Zhang and Nenghai Yu, Adversarial Examples Detection beyond Image Space, *International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2021.
- ★ **Kejiang Chen**, Hang Zhou, Dongdong Hou, Weiming Zhang and Nenghai Yu. Reversible Data Hiding in JPEG Images under Multi-distortion Metric, *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 2020.
- ★ **Kejiang Chen**, Yuefeng Chen, Hang Zhou, Xiaofeng Mao, Yuhong Li, Yuan He, Hui Xue, Weiming Zhang and Nenghai Yu, Self-supervised Adversarial Training, *International Conference on Acoustics, Speech, and Signal Processing (ICASSP)*, 2020.

- ★ **Kejiang Chen**, Hang Zhou, Weixiang Li, Kuan Yang, Weiming Zhang, Nenghai Yu, Derivative-based Steganographic Distortion and Its Non-additive Extensions for Audio, *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 2019.
- ★ **Kejiang Chen**, Hang Zhou, Wenbo Zhou, Weiming Zhang, Nenghai Yu, Defining Cost Functions for Adaptive JPEG Steganography at the Microscale, *IEEE Transactions on Information Forensics and Security (TIFS)*, 2018.
- ★ **Kejiang Chen**, Weiming Zhang, Hang Zhou, Nenghai Yu, Guorui Feng, Defining Cost Functions for Adaptive Steganography at the Microscale, *IEEE International Workshop on Information Forensics and Security (WIFS)*, 2016.
- ★ Xinzhi Yu, **Kejiang Chen**, Yaofei Wang, Weixiang Li, Weiming Zhang, Robust adaptive steganography based on generalized dither modulation and expanded embedding domain, *Signal Processing*, 2020.
- ★ Hang Zhou, Dongdong Chen, Jing Liao, **Kejiang Chen**, Weiming Zhang, Nenghai Yu, Gang Hua, LG-GAN: Label Guided Adversarial Network for Flexible Targeted Attack of Point Cloud-based Deep Networks, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2020.
- ★ Hang Zhou, **Kejiang Chen**, Weiming Zhang, Han Fang, Wenbo Zhou, Nenghai Yu, DUP-Net: Denoiser and Upsampler Network for 3D Adversarial Point Clouds Defense, *IEEE International Conference on Computer Vision (ICCV)*, 2019.
- ★ Hang Zhou, **Kejiang Chen**, Weiming Zhang, Chuan Qin, Nenghai Yu, Feature-Preserving Tensor Voting Model for Mesh Steganalysis, *IEEE Transactions on Visualization and Computer Graphics (TVCG)*, 2019.
- ★ Weixiang Li, **Kejiang Chen**, Weiming Zhang, Hang Zhou, Yaofei Wang, Nenghai Yu, JPEG Steganography with Estimated Side-information, *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 2019.
- ★ Li Li, Weiming Zhang, **Kejiang Chen**, Chuan Qin, Nenghai Yu, Adversarial Batch Image Steganography against CNN-based Pooled Steganalysis, *Signal Processing*, 2020.
- ★ Li Li, Weiming Zhang, **Kejiang Chen**, Nenghai Yu, Steganographic Security Analysis from Side Channel Steganalysis and its Complementary Attacks, *IEEE Transactions on Multimedia (TMM)*, 2019.
- ★ Xinzhi Yu, **Kejiang Chen**, Weiming Zhang, Yaofei Wang, Nenghai Yu, Steganographic Security Analysis from Side Channel Steganalysis and its Complementary Attacks, *IEEE Workshop on Watermarking (IWDW)*, 2018.
- ★ Kuan Yang, **Kejiang Chen**, Weiming Zhang, Nenghai Yu. Provably Secure Generative Steganography Based on Autoregressive Model, *IEEE Workshop on Watermarking (IWDW)*, 2018.
- ★ Wenbo Zhou, Weixiang Li, **Kejiang Chen**, Hang Zhou, Weiming Zhang, Nenghai Yu. Controversial 'pixel' prior rule for JPEG adaptive steganography, *IET Image Processing*, 2018.

- ★ Hang Zhou, **Kejiang Chen**, Weiming Zhang, Yuanzhi Yao, Nenghai Yu, Distortion Design for Secure Adaptive 3D Mesh Steganography, *IEEE Transactions on Multimedia (TMM)*, 2018.
- ★ Hang Zhou, **Kejiang Chen**, Weiming Zhang, Zhenxing Qian, Nenghai Yu, Targeted Attack and Security Enhancement on Texture Synthesis Based Steganography, *Journal of Visual Communication and Image Representation (JVCIR)*, 2018.
- ★ Weixiang Li, Weiming Zhang, **Kejiang Chen**, Wenbo Zhou, Nenghai Yu, Defining Joint Distortion for JPEG Steganography, *ACM Workshop on Information Hiding and Multimedia Security (IH&MMSec)*, 2018.
- ★ Yiwei Zhang, Weiming Zhang, **Kejiang Chen**, Jiayang Liu, Yujia Liu, Nenghai Yu, Adversarial examples against deep neural network based steganalysis, *ACM Workshop on Information Hiding and Multimedia Security (IH&MMSec)*, 2018.
- ★ Dongdong Hou, Weiming Zhang **Kejiang Chen**, S J Lin, Nenghai Yu, Reversible data hiding in color image with grayscale invariance, *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)*, 2018.
- ★ Hang Zhou, **Kejiang Chen**, Weiming Zhang, Nenghai Yu, Comments on 'Steganography Using Reversible Texture Synthesis', *IEEE Transactions on Image Processing (TIP)*, 2017.

Skills

Programming Language: Python, Matlab, C++

Deep Learning Framework: Tensorflow, Pytorch, Keras

Services

- ★ IEEE Member
- ★ Reviewer
 - IEEE Transactions on Multimedia (TMM)
 - IEEE Transactions on Circuits and Systems for Video Technology (TCSVT)
 - IEEE Conference on Computer Vision and Pattern Recognition (CVPR)
 - IEEE International Workshop on Information Forensics and Security (WIFS)

Awards & Honors

- 2020 Outstanding Graduates of University of Science and Technology of China
- 2019 Cyberspace Security Scholarship (Only 93 people nationwide)
- 2016-2019 First-class Scholarship, University of Science and Technology of China
- 2015 Outstanding Graduates in Shanghai City
- 2014 Third Prize of the 8th China University IOT Innovation and Entrepreneurship Competition Finals
- 2014 Second Prize of Shanghai Electronic Design Competition (TI Cup)