

CURRICUMUL VITAE

Yue Li

Address: Room 704, Unit 1,
Building 2, No. 254, North Xingye
road, Pidu District, Chengdu,
Sichuan Province, China

Email: 859000040@qq.com
School Email: liyue859000040@my.swjtu.edu.cn

Personal Data

Place of Birth/Nationality: Shanxi Province, China / Chinese

Date of Birth: October 20th, 1992



Education

Visiting Ph.D. student 2019-current Visual Information Privacy and Protecting (VIPP) Group, Department of Information Engineering and Mathematics of University of Siena (UNISI), Siena, Italy. Supervised by Prof. Mauro Barni.

Ph.D. candidate 2016 - current School of Information Science & Technology, Southwest Jiaotong University, Chengdu, Sichuan Province, China. Major in *the Security of Multimedia Applications*. Supervised by Prof. Hong-Xia Wang.

M.S. 2015 - 2016 School of Information Science & Technology, Southwest Jiaotong University, Chengdu, Sichuan Province, China. Major in *Cryptography*. Supervised by Prof. Hong-Xia Wang.

B.S. 2011 - 2015 School of Information Science & Technology, Southwest Jiaotong University, Chengdu, Sichuan Province, China. Major in *Information Security*.

Present Research Field

Video watermarking of H.264/AVC or HEVC standard, DNN watermarking techniques for protecting the authorship of the trained model.

Research Experience

2016 - 2018 : Ph. D. candidate

- Present a robust H.264/AVC video watermarking algorithm to solve the capacity limitation and visual performance without intra distortion drift at the same time. According to the reference pixels of different intra prediction modes, these prediction modes can be classified into five categories. The method of each category to prevent distortion from drifting has carried out, which effectively improved the visual performance with enlarged capacity. Experimental results show that compared with other methods, the proposed algorithm maintains good visual performance with the enlarged capacity, and the strong robustness is kept without a huge increase of bit rate.

- Improve the algorithm mentioned above. Based on the reference pixels when 4×4 blocks of videos are encoded, the improved scheme introduces a reclassification of intra prediction modes into avoiding distortion drift, which efficient enlarges the capacity of this kind of methods. Besides, the chosen principle of coefficient-pairs for watermarking is presented by theoretical and experimental analysis in the improved method.
- As the main researcher, participate the project supported by the National Natural Science Foundation of China (NSFC) under the grant No. U1536110, whose theme is *Information Hiding Algorithms with Low Bit Rate Growth of Video in H.264/AVC Compressed Domain*. A system which contains several information hiding algorithms proposed by our lab is complied for this project. By proper using the platform named *ffmpeg*, most kind of compressed video formats (such as avi or rmvb) can hiding and extracting watermark correctly.

2015 - 2016 : Master of Science

- Propose a reversible data hiding with low bit-rate growth in H.264/AVC. Adaptive hybrid coding proposed in this paper has been applied on different trailing coefficients, which makes the algorithm have considerable embedding capacity and the low bit-rate growth.

Honors and Awards

- Best paper award in *the International Workshop on Secure Biometric Technologies*, Dec., 2016.
- Third Prize in *National Post-Graduate Mathematical Contest in Modeling* in China, sponsored by *HUAWEI Technologies Co., LTD*. May, 2016
- Twice first-class scholarship and twice third-class scholarship in Southwest Jiaotong University from 2015 to 2018.

Publication

- Y. Li, H. X. Wang, Robust H.264/AVC Video Watermarking without Intra Distortion Drift, *Multimedia Tools and Applications*, Nov. 2018, <http://doi.org/10.1007/s11042-018-6942-0>.
- Y. Li, H. X. Wang, Robust H.264/AVC Video Watermarking, *International Conference on Cloud Computing and Security*, 11066(2018), 416-427, http://doi.org/10.1007/978-3-030-00015-8_36
- Y. Li, H. X. Wang, "Robust H.264/AVC Video Watermarking without Intra Distortion Drift", *International Conference on Cloud Computing and Security*, 1225; (2018), 6: /84, http://doi.org/10.1007/978-3-319-48671-0_5
- H. X. Wang, W. Zhang, Y. Li, Remote Authentication of Speaker Identify Based on Perceptual Fingerprint Hashing, *the International Workshop on Secure Biometric Technologies*, Dec., 2016.

Other Professional Activities

- Teaching assistant for the undergraduate-level course — C Programming Languages and Techniques in School of Information Science & Technology, Southwest Jiaotong University. Fall, 2016 and 2017.

- Teaching assistant for the undergraduate-level course — C++ Programming Languages and Techniques in School of Information Science & Technology, Southwest Jiaotong University. Spring, 2018