

# Dongdong Lin

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<https://mrdongdonglin.github.io>

## PUBLICATIONS

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Chengqing Li, **Dongdong Lin**, Bingbing Feng, Jinhu Lü, Feng Hao, “Cryptanalysis of an image encryption algorithm based on information entropy,” *IEEE Access*, vol. 6, pp. 75834-75842, 2018.

Chengqing Li, **Dongdong Lin**, Jinhu Lü, Feng Hao, “Cryptanalyzing an image encryption algorithm based on autoblocking and electrocardiography,” *IEEE Multimedia*, 2018.

Chengqing Li, **Dongdong Lin**, Jinhu Lü, “Cryptanalyzing an image-scrambling encryption algorithm based on pixel bits,” *IEEE Multimedia*, vol. 3, pp. 64-71, 2017.

## WORK EXPERIENCES

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Short-Term Research Activity, Hunan University. September 2018 – December 2018  
> Cryptanalysis of an image encryption algorithm based on information entropy.  
> Assist Prof. Chengqing Li in his research of cryptanalyzing an image encryption algorithm based on information entropy. This work has been published in *IEEE Access*.

Developmental Engineer, **ZhiWei-ChinaDDOS**, Hunan, China. August 2017 – September 2017  
> Real-time protection system for website.  
> Work with the program manager, to develop a real-time protection system for website. Numerous data are collected and analyzed to check the HTTP traffic is normal or not.

Short-Term Research Activity, University of Surrey. December 2016 – May 2017  
> Redundancy reduction for JPEG file.  
> Collaborate with **Shujun Li** (Chief of Research) in a short-term research project, and the task focus on reducing redundancy of JPEG images, while retaining quality and compatibility with recovering unknown DCT coefficients.

## PROJECTS

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Cryptanalysis of IEAIE: [https://github.com/MrDongdongLin/Cryptanalysis\\_IEAIE](https://github.com/MrDongdongLin/Cryptanalysis_IEAIE)

Cryptanalysis of ISEA: [https://github.com/MrDongdongLin/Cryptanalysis\\_ISEA](https://github.com/MrDongdongLin/Cryptanalysis_ISEA)

Cryptanalysis of IEAE: [https://github.com/MrDongdongLin/Cryptanalysis\\_IEAE](https://github.com/MrDongdongLin/Cryptanalysis_IEAE)

A L<sup>A</sup>T<sub>E</sub>X template: <https://www.ctan.org/pkg/xtuthesis>, <https://github.com/MrDongdongLin/xtuthesis>

## EDUCATION

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M.Sc. Computer Science September 2015 – July 2018  
Xiangtan University, Hunan, China  
Thesis Title: Security Analysis of Some Image Privacy Protection Methods  
Research Interests: Privacy Protection, Cryptanalysis, Image Encryption

B.S. Computer Science September 2011 – July 2015  
Xiangtan University, Hunan, China  
The Second Prize Scholarship  
English (A), C Language Programming (A), Computer Algorithm (A), Computer Graphics (A)

## SKILLS

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- Strong typesetting ability of both L<sup>A</sup>T<sub>E</sub>X and Microsoft Word, two papers and my graduation thesis are available: [Cryptanalysis of ISEA](#), [Cryptanalysis of IEAE](#), and [Graduation Thesis](#).
- Strong presentation and public speaking skills.
- Technical skills include Matlab programming, Python programming and C/C++ programming, and some software engineering.
- Strong skills in mathematics, statistics, and data analysis.
- Event planning and conference facilitation skills.

# 林东东

所学专业：计算机科学与技术

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论文	<ul style="list-style-type: none"><li><b>论文</b><p>Chengqing Li, Dongdong Lin, Bingbing Feng, Jinhu Lü and Feng Hao, "Cryptanalysis of an image encryption algorithm based on information entropy" <i>IEEE Access</i>, vol. 6, pp. 75834-75842, 2018.</p><p>Chengqing Li, <b>Dongdong Lin</b>, Feng Hao and Jinhu Lü, "Cryptanalyzing an image encryption algorithm based on autoblocking and electrocardiography," <i>IEEE Multimedia</i>, 2018.</p><p>Chengqing Li, Dongdong Lin and Jinhu Lü, "Cryptanalyzing an image scrambling encryption algorithm of pixel bits," <i>IEEE MultiMedia</i>, vol. 3, pp. 64-71, 2017.</p></li></ul>		
	工作和项目经验	2015.10 2016.01	<b>基于唯位置置乱图像加密算法的安全分析</b> <p>该项目对一种基于像素比特位置置乱的图像加密算法 (ISEA) 进行了安全分析, 利用图像数据间的强相关性, 提出了一种有效的唯密文攻击方法, 定量地分析了 ISEA 抵抗已知明文攻击和选择明文攻击的能力。</p>
		2016.09 2017.05	<b>基于 DCT 变换的图像/视频隐私保护技术的安全分析</b> <p>该项目对一种基于 DCT 系数置乱的图像/视频隐私保护算法进行了安全分析。研究发现该算法抵抗已知明文攻击的能力很弱。该课题主要研究求解 DCT 系数最优解问题并将其应用于图像压缩方面, 以期在保证解压图像质量的同时提高压缩率。</p>
		2017.08 2017.12	<b>基于图像自动分块和心电图信号的图像加密算法的安全分析</b> <p>该项目对一种基于图像分块和心电图信号的图像加密算法 (IEAE) 进行了安全分析。通过分析 IEAE 的本质结构, 设计了一个获得 IEAE 的等价密钥的算法。此外, 我们以该算法为反例, 分析了图像安全领域常用安全检测指标的缺陷。</p>
		2017.08 2017.09	<b>湖南省长沙市智为信息技术有限公司 (实习)</b> <p>该项目属于公司云平台产品的一个基本功能, 云平台主要功能是提供给用户可视化地展现业务系统网络安全实时态势, 毫秒级监测系统运行状况。而 HTTP 监控则是使用公司部署在全国各地的节点对用户网站进行 24×7 小时实时监控并将网站故障进行及时反馈。</p>
2018.09 2018.11		<b>基于信息熵的图像加密算法的安全分析</b> <p>该项目对一种基于信息熵的图像加密算法 (IEAIE) 进行了安全分析, 从混沌映射的动力学特性等多个角度评价该算法的安全性能, 并发现该算法在一轮加密的情况下可以使用差分攻击进行破解。</p>	
奖励与荣誉	<ul style="list-style-type: none"><li><b>荣誉奖励类</b><p>2012.04 法制安全讲座优秀调研报告 2012.05 团委学生会优秀干事 2013.05 校级 团校优秀学员 2013.05 校级 五四评优志愿服务先进个人 2014.12 校级 乙等奖学金 2014.12 校级 三好学生</p></li></ul>	<ul style="list-style-type: none"><li><b>证书类</b><p>2011.06 CET4 2015.06 CET6 2018.09 IELTS 2013.06 国家软件等级考试中级证书 2014.01 驾驶资格证</p></li></ul>	
	<p>研究方向: 多媒体数据隐私保护、密码分析、图像加密</p> <p>专业技能: Matlab; C/C++; Python; L<sup>A</sup>T<sub>E</sub>X</p> <p>英语能力: CET4 (482) CET6 (470) IELTS (Overall: 6.0, LWRs: 6.0, 6.5, 6.0, 6.0)</p>		