CHANG XIAO

721 CEPSR, Columbia University ⋄ New York, NY. 10025

http://chang.engineer ⋄ chang@cs.columbia.edu

EDUCATION

Columbia University in the City of New York   2016 - Present
Ph.D in Computer Science

Columbia University in the City of New York   2016 - 2018
M.S. in Computer Science
MPhil. in Computer Science

Zhejiang University, Hangzhou, China   2012 - 2016
Bachelor in Computer Science
Chu Kochen Honors College

PUBLICATIONS

Chang Xiao and Changxi Zheng
One Man's Trash is Another Man's Treasure: Resisting Adversarial Examples by Adversarial Examples
Conference on Computer Vision and Pattern Recognition (CVPR), 2020

Chang Xiao, Peilin Zhong and Changxi Zheng
Enhancing Adversarial Defense by k-Winners-Take-All
International Conference on Learning Representations (ICLR), 2020 (Spotlight Presentation)

Jingtian Peng, **Chang Xiao**, Xun Wei and Yifan Li
RP2K: A Large-Scale Retail Product Dataset for Fine-Grained Image Classification
preprint, arXiv:2006.12634, 2020

Chang Xiao, Karl Bayer, Changxi Zheng, Shree Nayar
Vidgets: Modular Mechanical Widgets for Mobile Devices
ACM Transactions on Graphics (SIGGRAPH), 2019

Zahra Montazeri, **Chang Xiao**, Yun (Raymond) Fei, Changxi Zheng, and Shuang Zhao
Mechanics-Aware Modeling of Cloth Appearance
IEEE Transactions on Visualization and Computer Graphics (TVCG), 2019

Peilin Zhong*, Yuchen Mo*, **Chang Xiao***, Pengyu Chen, and Changxi Zheng (*equal contribution)
Rethinking Generative Mode Coverage: A Pointwise Guaranteed Approach.
Neural Information Processing Systems (NeurIPS), 2019

Chang Xiao, Peilin Zhong, Changxi Zheng
BourGAN: Generative Networks with Metric Embeddings
Neural Information Processing Systems (NeurIPS), 2018 (Spotlight Presentation)

Chang Xiao, Cheng Zhang, Changxi Zheng
FontCode: Embedding Information in Text Documents using Glyph Perturbation
ACM Transactions on Graphics (SIGGRAPH), 2018

Adam Overvig, Sajan Shrestha, **Chang Xiao**, Changxi Zheng, Nanfang Yu
Two-Color and 3D Phase-Amplitude Modulation Holograms
Conference on Lasers and Electro-Optics (CLEO), 2018

EXPERIENCE

Columbia University   2016 - Present
Graduate Researcher & Teaching Assistant
Advisor: Changxi Zheng

Snap Research, New York City   Summer 2018, 2019
Research Intern
Advisor: Shree K. Nayar

GAPS Lab, Zhejiang University   2014-2016
Undergrad Research Assistant
Advisor: Kun Zhou

DeepGlint, Beijing   Summer 2015
Research Intern in Computer Vision

SELECTED AWARDS

Columbia University CKGSB Doctoral Fellowship	2020, 2019
Snap Research Fellowship	2019
ICLR Travel Award	2020
NeurIPS Travel Award	2019, 2018
China Computer Federation (CCF) Elite Collegiate Award	2015
Zhejiang University First-Class Scholarship	2016, 2015, 2014

SELECTED MEDIA COVERAGE

Forget touchscreens: This case controls a smartphone with buttons and dials [CNN]
Add Scroll Wheels And Buttons To Smartphones With 3D-Printed Widgets [Hackaday]
Researchers build a smart case to control your phone with no wires or Bluetooth required [New Atlas]
Without Wires Or Bluetooth, This Case Lets You Add Buttons And Scroll Wheels To Your Smartphone [Gizmodo]
You Can Send Invisible Messages With Subtle Font Tweaks [WIRED]
Hiding Information in Plain Text [IEEE Spectrum]
Researchers Hide Information in Plain Text [Columbia Engineering]
Helvetica Is Now An Encryption Device [CoDesign]
This algorithm can hide secret messages in regular-looking text [Digital Trend]

PATENT

Systems and methods for steganography based on text fonts
US Patent App. 15/903,888

Vibrational Input Widgets
Patent Filed

Passive Back-of-Device Trackpad for Mobile Devices
Patent Filed

PROFESSIONAL SERVICE

Reviewer

SIGCHI	2021
ICLR	2020, 2021
CVPR	2020

NeurIPS	2019, 2020, 2021
ICML	2019, 2020, 2021
SIGGRAPH	2020
SIGGRAPH Asia	2018
IEEE Transactions on Visualization and Computer Graphics (TVCG)	2018

Program Committee

CVPR Adversarial Machine Learning in Computer Vision Workshop	2020
ACM SIGGRAPH / Eurographics Symposium on Computer Animation (SCA)	2017

TEACHING

Computer Graphics   Spring 2018
Teaching Assistant

Advanced Computer Graphics   Spring 2017
Teaching Assistant

Computer Animation   Fall 2017
Teaching Assistant