

Quoc-Tin Phan

CONTACT INFORMATION	Dept. of Information Engineering and Computer Science University of Trento, Italy Via Sommarive 9 I-38123 Povo (TN)	(+39) 3420236513 quoctin.phan@unitn.it https://github.com/quoctin
RESEARCH INTERESTS	Modern photography is losing its innocency under the presence of an adversary, who can perform sophisticated image manipulations undetectable by human visual system. I am passionate on the exploitation of machine learning and optimization techniques to detect imperceptible patterns, towards protecting and recovering the trustworthiness of digital images.	
EDUCATION	Ph.D candidate in ICT, University of Trento, Italy	Nov. 2015 - present
	<ul style="list-style-type: none">• Expected graduation: Apr. 2019.• Concentration: <i>Modern digital images are being created, manipulated, and diffused in uncontrolled manners. My Ph.D study focuses on the exploitation of machine learning and optimization techniques towards uncovering digital image provenance.</i>• Advisors: Assoc. Prof. Giulia Boato and Prof. Francesco G. B. De Natale	
	Master in CS, University of Science, HCMC, Vietnam	Sep. 2011 - Dec. 2013
	<ul style="list-style-type: none">• Concentration: <i>Searchable encryption based on discrete logarithm problem on matrix group.</i>• Advisor: Assoc. Prof. Thuc D. Nguyen	
	Bachelor in CS (Honor program), University of Information Technology, HCMC, Vietnam	Sep. 2006 - Dec. 2010
	<ul style="list-style-type: none">• Thesis: <i>Sync data on parallel channels for distance learning.</i>• Advisor: Dr. Hong-Hai Dam-Quang	
ACADEMIC EXPERIENCE	Research Visiting Student Visual Information Processing and Protection (VIPP) Department of Information Engineering and Mathematics University of Siena, Italy Concentration: <i>Copying the source region and pasting into the target region is an easy-to-perform image manipulation to hide objects or to deceive viewers. My research aims at building an end-to-end system for detecting duplications and disambiguating source-target.</i> Supervisor: Mauro Barni, Ph.D	Sep. 2018 - Feb. 2019
	Teaching Assistant Multimedia Data Security (Master course), University of Trento Collaborator in EUREGIO challenge, hosted by University of Trento, Italy, and University of Innsbruck, Austria.	Sep. 2017 - Mar. 2018
	Research Assistant Faculty of Computer Network and Communication University of Information Technology, HCMC Supervisor: Hong-Hai Dam-Quang, Ph.D	May. 2011 - Oct. 2015
INDUSTRIAL EXPERIENCE	Firmware Engineer Aotea Global Services Limited	Nov. 2013 - Apr. 2014

Responsibility: developing firmware to function a system involving electronics devices: Arduino boards, Bluetooth, GPS, RF Transceivers.

3D Game Programmer Aug. 2010 - Apr. 2011
Gameloft Corporation

Responsibility: porting 3D games written in C++ to be runnable on Android platform by using Android NDK.

TECHNICAL SKILLS Programming languages: Python, Matlab, C++, Bash Script
Machine learning frameworks: Tensorflow, Keras, scikit-learn
Platforms: Linux, MacOS, Windows

LANGUAGES English (C1 level)
Vietnamese (mother tongue)

PUBLICATIONS **Selected papers:**

1. **Q.-T. Phan**, G. Boato, R. Caldelli, I. Amerini, "Tracking Multiple Image Sharing on Social Networks", 2019. To appear in *Int. Conference on Acoustics, Speech, and Signal Processing*.
2. **Q.-T. Phan**, G. Boato, F. G. B. De Natale, "Accurate and Scalable Image Clustering Based On Sparse Representation of Camera Fingerprint", *IEEE Transactions on Information Forensics & Security*, 2019.
Early access: <https://ieeexplore.ieee.org/abstract/document/8576558>.
3. **Q.-T. Phan**, C. Pasquini, G. Boato, F. G. B. De Natale, "Identifying image provenance: an analysis of mobile instant messaging apps", *Int. Workshop on Multimedia Signal Processing*, 2018.
4. **Q.-T. Phan**, A. Budroni, C. Pasquini and F. G. B. De Natale, "A Hybrid Approach for Multimedia Use Verification", *MediaEval*, 2016.
5. **Q.-T. Phan**, D. T. Dang-Nguyen and G. Boato and F. G. B. De Natale, "Face spoofing detection using LDP-TOP", *Int. Conference on Image Processing*, 2016.

Full list: <https://goo.gl/UwwnkW>

- SUBMITTED PAPERS
1. **Q.-T. Phan**, M. Vascotto, G. Boato, "Hue Modification Localization By Pair Matching", 2019. Submitted to *European Signal Processing Conference*.
Preprint: <http://arxiv.org/abs/1903.01735>.
 2. E. Sansone, **Q.-T. Phan**, F. G. B. De Natale, "Coulomb Autoencoders", 2019.
Submitted to *International Conference on Machine Learning*.
Preprint: <https://arxiv.org/abs/1802.03505>.

- PRESENTATIONS Conferences and Workshops
- Int. Conference on Image Processing, Arizona, USA 2016
 - MediaEval Workshop, Hilversum, Netherlands 2016
 - Int. Workshop on Multimedia Forensics and Security, Bucharest, Romania 2017
 - Int. Conference on Image Analysis and Processing, Sicily, Italy 2017
 - GTTI Thematic Meeting on Multimedia Signal Processing, Trento, Italy 2018

REFERENCES Upon request