Quoc-Tin Phan

CONTACT INFORMATION	Department of Information Engineering and Computer Science University of Trento, Italy Via Sommarive 9 I-38123 Povo (TN)

(+39) 3420236513
dimmoon2511@gmail.com

RESEARCH INTERESTS

In computer vision, machines are taught to see what human can see. On the contrary, multimedia contain patterns that human cannot see and machines potentially can. I am passionate on the exploitation of machine learning to detect imperceptible patterns associated with security issues in multimedia data.

EDUCATION

University of Trento, Trento, Italy

Ph.D., Multimedia Analysis, *Expected:* April 2019

- Concentration: *Studying the process in which digital images are created, modified, diffused, and exploiting machine learning to uncover digital image provenance.*
- Advisors: Giulia Boato, Ph.D and Francesco G. B. De Natale, Ph.D

University of Science, HCMC, Ho Chi Minh city, Vietnam

M.S., Computer Science, June 2014

- Concentration: *Public key cryptography based on the discrete logarithm problem on a matrix group and its application in searchable encryption*
- Advisor: Thuc D. Nguyen, Ph.D

ACADEMIC & RESEARCH EXPERIENCE

Research Visitting Student   Sep. 2018 to Feb. 2019
Visual Information Processing and Protection (VIPP)
Department of Information Engineering and Mathematics
University of Siena, Italy
Supervisor: Mauro Barni, Ph.D

Doctoral Research Fellow   Oct. 2015 to present
Doctoral School in Information and Communication Technology
University of Trento, Italy
Supervisor: Giulia Boato, Ph.D, and Francesco G. B. De Natale, Ph.D

Teaching Assistant   Sep. 2017 to Mar. 2018
Multimedia Data Security (codice 145614), University of Trento
Collaborator in EUREGIO challenge, hosted by University of Trento, Italy, and University of Innsbruck, Austria.

Research Assistant   May. 2011 to Oct. 2015
Faculty of Computer Network and Communication
University of Information Technology, HCMC
Supervisors: Hong-Hai Dam-Quang, Ph.D

PUBLICATIONS

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: link.

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. F. Lago, **Q.-T. Phan**, G. Boato, "Image Forensics on Online News", *Int. Workshop on Multimedia Signal Processing*, 2018.

5. **Q.-T. Phan**, D.-T. Dang-Nguyen, G. Boato, F. G. B. De Natale, "Using LDP-TOP In Video Based Spoofing Detection", *Int. Conference on Image Analysis and Processing*, 2017.

6. **Q.-T. Phan**, G. Boato, F. G. B. De Natale, "Image Clustering by Source Camera via Sparse Representation", *Int. Workshop on Multimedia Forensics and Security*, 2017.

7. **Q.-T. Phan**, A. Budroni, C. Pasquini and F. G. B. De Natale, "A Hybrid Approach for Multimedia Use Verification", *MediaEval*, 2016.

8. **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.

9. **Tin Q. Phan**, Van H. Dang and Thuc D. Nguyen, "A Novel Construction for PEKS Scheme Using Matrix Group", *Ubiquitous Information Technologies and Applications*, 2014.

SUBMITTED PUBLICATIONS	1. E. Sansone, **Q.-T. Phan**, F. G. B. De Natale, "Coulomb Autoencoders", 2019. Submitted to *International Conference on Machine Learning*.

PRESENTATIONS

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

REFERENCES

Giulia Boato
    Assoc. Professor   E-mail: giulia.boato@unitn.it
    Dept. of Information Engineering and
    Computer Science
    University of Trento, Italy

Francesco G. B. De Natale
    Professor   E-mail: francesco.denatale@unitn.it
    Dept. of Information Engineering and
    Computer Science
    University of Trento, Italy

Thuc D. Nguyen
    Assoc. Professor   E-mail: ndthuc@fit.hcmus.edu.vn
    Dept. of Information Technology
    University of Science, HCMC, Vietnam