Quoc-Tin Phan

CONTACT Information Department of Information Engineering and Computer Science

University of Trento, Italy

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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 solve security issues of multimedia data.

EDUCATION

University of Trento, Trento, Italy

Ph.D., Multimedia Analysis, Expected: December 2018

- Concentration: Studying the process in which digital images are created, modified, diffused, and exploit 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

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, F. G. B. De Natale, "Accurate and Scalable Image Clustering Based On Sparse Representation of Camera Fingerprint", to appear in *IEEE Transactions on Information Forensics & Security*, 2019.
- 2. 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.
- F. Lago, Q.-T. Phan, G. Boato, "Image Forensics on Online News", Int. Workshop on Multimedia Signal Processing, 2018.

- 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.
- 5. 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.
- 6. Q.-T. Phan, A. Budroni, C. Pasquini and F. G. B. De Natale, "A Hybrid Approach for Multimedia Use Verification", *MediaEval*, 2016.
- 7. 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.
- 8. **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. Q.-T. Phan, G. Boato, R. Caldelli, I. Amerini, "Tracking Multiple Image Sharing on Social Networks", 2018. Submitted to *Int. Conference on Acoustics, Speech, and Signal Processing.*
- 2. E. Sansone, Q.-T. Phan, F. G. B. De Natale, "Coulomb Autoencoders", 2018. Submitted to International Conference on Artificial Intelligence and Statistics.

Presentations

Conferences and Workshops

• Int. Conference on Image Processing, Arizona, USA

 $\mathrm{Sep}\ 2016$

• 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 Dep. of Information Engineering and

Computer Science

University of Trento, Italy

Francesco G. B. De Natale

Professor E-mail: francesco.denatale@unitn.it

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Computer Science

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Thuc D. Nguyen

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