Luca Melis

Curriculum Vitae

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Education

September PhD in Privacy Enhancing Technologies, under the supervision of Dr. Emiliano 2014–Present De Cristofaro, University College of London.

April 2013 Master's Degree in Computer Engineering, University of Florence, mark 110/110 cum laude and honorable mention.

Thesis: On the Learning Parity with Noise Problem

April 2010 **Bachelor's Degree in Computer Engineering**, *University of Florence*, mark 110/110 cum laude.

Thesis: Implementation of a Buyer-Seller protocol based on group signatures

Research interests

- Machine Learning in Privacy and Security
- Privacy and Applied Cryptography
- Systems and Network Security

Visits/Internships

June -August Applied Scientist Intern, AMAZON AWS AI, New York City, USA.

2017 Research on Security and Deep Learning.

September Enrichment Year Student, ALAN TURING INSTITUTE, London, UK.

2016–May Research on Privacy and Machine Learning.

2017

September- PhD Intern, INRIA RHONE ALPES, Grenoble, France.

December Research on Deep Learning applied to Differential Privacy and social networks de-

2015 anonymization under the supervision of Dr. Claude Castelluccia.

August **EU Erasmus**, AARHUS UNIVERSITY, Aarhus, Denmark.

2012-January Master's thesis preparation under the supervision of Claudio Orlandi and Ivan Damgård;

2013 Research on post quantum cryptography.

Peer-reviewed Publications

2017 Acs, Gergely et al. "Differentially Private Mixture of Generative Neural Networks". In: *IEEE International Conference on Data Mining series (ICDM 2017)*.

2016 Asghar, Hassan Jameel et al. "SplitBox: Toward Efficient Private Network Function Virtualization". In: ACM SIGCOMM Workshop on Hot Topics in Middleboxes and Network Function Virtualization (HotMiddleBox 2016).

Melis, Luca, Hassan Jameel Asghar, et al. "Private Processing of Outsourced Network Functions: Feasibility and Constructions." In: *ACM Workshop on SDN-NFV Security* 2016.

Melis, Luca, George Danezis, and Emiliano De Cristofaro. "Efficient Private Statistics with Succinct Sketches". In: *Network and Distributed System Security Symposium (NDSS 2016)*.

Peer Reviewing for Scientific Conferences and Journals

- 2017 CCS, NDSS, PETS
- 2016 NDSS, NIPS, PETS
- 2015 S&P

Schools/Workshops Attended

February 2017	7th BIU Winter School on Cryptography – Differential P	rivacy Tel Aviv, Israel
May 2016	Theory and Practice of Secure Multiparty Computation	Aarhus, Denmark
April 2016	Google's 1st PhD Student Summit on Web Application S	Security Google Munich, Germany
September 2015	School on Foundations of Security Analysis and Design (FOSAD) Bertinoro, Italy
January 2015	Privaski Workshop 2015	Correncon, France
January 2015	Real World Cryptography Workshop 2015	London, United Kingdom
October 2014	IACR CryptoAction School on Cryptographic Attacks	Porto, Portugal
August 2011	Computational Nanotechnology Summer School	Gdansk University of Technology,Poland

Teaching experience

Teaching **Privacy Enhancing Technologies**, MSC IN INFORMATION SECURITY, University Assistant College London, Winter 2015, Winter 2016.

Teaching Publishing Scientific Papers with LaTex/BibTex, Doctoral Skills Devel-Assistant Opment Programme, University College London, Winter 2015.

Talks

- August 2017 **Privacy Preserving Generative Neural Networks**, *Amazon Al Learning Sessions*, New York City, USA.
- August 2016 **SplitBox: Toward Efficient Private Network Function Virtualization**, SIG-COMM Workshop on Hot Topics in Middleboxes and Network Function Virtualization, Florianopolis, Brazil.

February Efficient Private Statistics with Succinct Sketches, 23rd Network and Dis-

2016 tributed System Security Symposium (NDSS 2016), San Diego, USA.

February Efficient Private Statistics with Succinct Sketches, Information Security Sem-

2016 inar at University College London, London, UK.

November Efficient Private Statistics with Succinct Sketches, INRIA Rhône-Alpes, Greno-

2015 ble, France.

Work experience

November Software Test Engineer Level II, GAMING LABORATORIES INTERNATIONAL 2013–August (GLI), Bologna, Italy.

2014

July-October Computer Vision researcher, T3LAB, Bologna, Italy.

2013

 $\label{eq:may-June} \textbf{Business Intelligence consultant}, \ Iconsulting \ S.p.A., \ Bologna, \ Italy.$

2013

Awards

July 2017 5th Data Protection by Design Award, issued by the Catalan Data Protection authority and the Parliament of Catalonia, 1st Place.

The international award is appointed by The Catalan Data Protection Authority to give recognition to technological solutions that make a relevant contribution to the protection of privacy in the design of applications. The award was assigned for the paper "Efficient Private Statistics with Succinct Sketches" presented at NDSS 2016.

June 2015 **London CyberHack 2015 – Fintech Security**, 1st Place - Best Go-To-Market Strategy.

We designed and implemented a web application for preventing invoice fraud. In this project, I worked in a team of 4 people and I was responsible for the front-end development

July 2014 UCL Studentship for postgraduate work in the Department Computer Science.

The Departmental Studentship award covers tuition fees, research costs and stipends for 3 years and 6 months.

Language skills

Italian Mothertongue

English Fluent Level C1, TOEFL internet based test with a score of 98 out of 120 (2014)

Computer skills and competences

Languages C/C++, SQL, Java, JavaScript, Python, Scala