# **Daniele Friolo**

#### About me:

About me: Currently Post-Doc at University of Salerno at the Cryptography Research Group and PhD candidate in Cryptography at Sapienza University of Rome. My Research topics are on Multi-Party Computation, Zero-Knowledge, Distributed Ledgers/ Blockchains, Digital Contact Tracing.

#### WORK EXPERIENCE

31/05/2015 - 17/02/2016

#### **MOBILE APP DEVELOPER VIVEREINFORMA SRLS**

Android App developer, uGym project: an application focused on geolocalize gyms near a certain place **Address** Guidonia

31/01/2017 - 30/09/2017

### **MOBILE APP DEVELOPER PEZZUTO SRL**

- Android app developing

Address Lecce, Italy

#### EDUCATION AND TRAINING

01/11/2017 - CURRENT Rome, Italy

PHD STUDENT University of Rome "La Sapienza"

Cryptography

Address Rome, Italy

15/01/2015 - 24/10/2017 Rome, Italy

MASTER DEGREE IN COMPUTER SCIENCE Università degli studi "La Sapienza" di Roma

Curriculum: Information science and applications.

Thesis on Cryptography.

Address Rome, Italy

30/09/2009 - 12/01/2015 Rome, Italy

BACHELOR DEGREE IN COMPUTER SCIENCE Università Degli Studi "La Sapienza"

Address Rome, Italy

15/09/2004 - 10/06/2009

DIPLOMA DI SCUOLA SUPERIORE Liceo Scientifico "Lazzaro Spallanzani" di Tivoli

### LANGUAGE SKILLS

Mother tongue(s): ITALIAN

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	C1	B2	B2	B2

#### **COMMUNICATION AND INTERPERSONAL SKILLS**

**Communication and interpersonal skills** - sharing ideas with a precise explanation of possible methods to realize them in a simple way

### **JOB-RELATED SKILLS**

#### Job-related skills

- Teaching Math and Computer Science using simple logical schemas, so students can easily understand the subject and go on with the timeline without problems
- Problem solving attitude given by active research in my field

#### **PUBLICATIONS**

### **Round-Optimal Oblivious Transfer from Strongly Uniform Key Agreement**

Proceedings of Theory of Cryptography Conference 2019 https://eprint.iacr.org/2018/473.pdf – 2019 join work with Daniel Masny and Daniele Venturi

#### **Shielded Computations in Smart Contracts Overcoming Forks**

Proceedings of Financial Cryptography and Data Security 2021 https://eprint.iacr.org/2019/891.pdf – 2021 joint work with Vincenzo Botta, Daniele Venturi and Ivan Visconti https://www.youtube.com/watch?v=C\_eZS13RXNI&t=230s

### Vision: What If They All Die? Crypto Requirements For Key People

2020 IEEE European Symposium on Security and Privacy Workshops (EuroS&PW) https://ieeexplore.ieee.org/document/9229860 – 2020 joint work with Chan Nam Ngo, Fabio Massacci, Daniele Venturi, Ettore Battaiola

### **Terrorist Attacks for Fake Exposure Notifications in Contact Tracing System**

Proceedings of the 19th International Conference on Applied Cryptography and Network Security 2021 https://eprint.iacr.org/2020/1150.pdf – 2021 join work with Gennaro Avitabile and Ivan Visconti

### Affordable Security or Big Guy vs Small Guy

Security Protocols Workshops 2019 2019

joint work with Chan Nam Ngo, Fabio Massacci and Daniele Venturi

### **PROJECTS**

**Toolkit for Secure Multi-Party Computation on Ledgers** https://priviledge-project.eu/news/toolkit-for-secure-multi-party-computation-on-ledgers

Developed a library to enable the Ethereum blockchain as a communication channel between players interacting in a

Multi-Party Computation protocol.

## **HOBBIES AND INTERESTS**

Taekwondo and acrobatics Actually 2nd dan black belt

**Piano**