

Chiara Luchini is a PhD student in Computer Science at the University of Florence's "Dottorato di Ricerca in Matematica, Informatica, Statistica", affiliated with the University of Perugia. In 2023, she graduated from the University of Perugia with a Master's Degree in Computer Science curriculum Cybersecurity. Her research activities are mainly focused on Distributed Ledger Technologies (DLT) and, in particular, on Self-Sovereign Identity (SSI), a model for managing digital identities in which individuals have sole ownership over the ability to control their accounts and personal data.

Education

- November 2023 – today **Ph.D. in Computer Science**, "*Dottorato di Ricerca in Matematica, Informatica, Statistica*", University of Florence, Florence, Italy
- October 2020– **M.Sc. in Computer Science, Curriculum Cybersecurity**, *University of Perugia*, Perugia, Italy
 - September 2023 ○ Thesis title: *Policy-based Credential Disclosure in SSI*
 - Supervisor: Prof. Stefano Bistarelli, Prof. Francesco Santini
- October 2016 **B.Sc. in Computer Science**, *University of Perugia*, Perugia, Italy
 - November 2020 ○ Thesis title: *Un dispositivo per il controllo di rete basato su Raspberry: Darkbox*
 - Supervisor: Prof. Francesco Santini
 - Co-supervisor: Dott. Marco Marcellini

Teaching Experience

- February 2024 **Course Tutor**, *Dipartimento di Matematica e Informatica (DMI)*, University of Perugia, Perugia (PG), Italy
 - May 2024 Course of *Cybersecurity with Laboratory* - SSD: INF/01 - 27 hours - Master's degree in Computer Science with Prof. Stefano Bistarelli
- November 2023 – now **Teaching assistant**, *Dipartimento di Matematica e Informatica (DMI)*, University of Perugia, Perugia (PG), Italy
 - Course of *Cybersecurity with laboratory* - SSD: INF/01 - Master's degree in Computer Science with Prof. Stefano Bistarelli
- November 2023 – now **Teaching assistant**, *Dipartimento di Matematica e Informatica (DMI)*, University of Perugia, Perugia (PG), Italy
 - Course of *Introduction to Cybersecurity* - SSD: INF/01 - Bachelor's degree in Computer Science with Prof. Stefano Bistarelli
- November 2022 – **Course Tutor**, *Dipartimento di Matematica e Informatica (DMI)*, University of Perugia, Perugia (PG), Italy
 - February 2023 Course of *Introduction to Cybersecurity* - SSD: INF/01 - 57 hours - Bachelor's degree in Computer Science with Prof. Stefano Bistarelli

Work Experience

- September 2022 - **Part-time student collaboration**, *Ripartizione Sistema Informativo di Ateneo - Ufficio Sicurezza ICT*, Piazza dell'Università 1 , Perugia (PG), Italy
- December 2022 ○ Main activities and responsibilities: Security audit based on OWASP framework of the UNIPG official site
- December 2019 - March 2020 **Occasional professional services**, *Next Duepuntozero S.r.l. Società Unipersonale*, Via Italo Scotoni 37 , Cortona (AR), Italy
 - PHP source code verification for management software and websites on the Apache, MySQL, PHP platform

Courses and internships

- April 2023 - **University Internship**, *Dipartimento di Matematica e Informatica (DMI)* , Via Luigi Vanvitelli, 1 , Perugia (PG), Italy
 - Main activities and responsibilities: Study and analysis of identity management systems, in particular, implemented through Self-sovereign identity.
 - Tutor: Prof. Francesco Santini
 - 75 hours
- March 2020 - **Participation to CyberChallenge.IT** , *Dipartimento di Matematica e Informatica (DMI)*, Via Luigi Vanvitelli, 1 , Perugia (PG), Italy

Description: *CyberChallenge.IT*, a training program for young talents between the ages of 16 and 24, is the leading Italian initiative to identify, attract, recruit and place the next generation of cybersecurity professionals. The project aims to attract young people's interest in topics of global relevance and where there is a known huge skills shortage. *CyberChallenge.IT* is organized by *Consorzio Interuniversitario Nazionale per l'Informatica (CINI)*.

 - Course duration: 72 hours
- September 2019 - **University Internship**, *Next Duepuntozero S.r.l. Società Unipersonale*, Via Italo Scotoni 37 , Cortona (AR), Italy
 - Main activities and responsibilities: Development and modification of websites
 - 150 hours
- June/July 2014 - **Tourist Information Officer**, *Ufficio Provinciale di Informazioni Turistiche*, Cortona (AR)
 - Summer internship of 1 week in 2014
 - Summer internship of 2 weeks in 2015

Languages

Italian	Mothertongue	
English	Upper Intermediate	First Certificate B2
French	Upper Intermediate	DEL F B2
Spanish	Basic	

Publications

Conference Papers

- [1] Stefano Bistarelli, Michele Ceccarelli, Chiara Luchini, Ivan Mercanti, and Francesco Santini. A Survey of Steganography Tools at Layers 2-4 and HTTP. In *Proceedings*

of the 18th International Workshop on Frontiers in Availability, Reliability and Security, FARES 2023, page 9. ACM, 2023.

- [2] Stefano Bistarelli, Michele Ceccarelli, Chiara Luchini, Ivan Mercanti, and Francesco Santini. A Preliminary Study on the Creation of a Covert Channel with HTTP Headers. In *Proceedings of the Italian Conference on Cyber Security (ITASEC 2024)*, page 15, 2024.
- [3] Stefano Bistarelli, Chiara Luchini, and Francesco Santini. A Word on Policy-based Credential Disclosure in SSI. In *5th Distributed Ledger Technology Workshop (DLT 2023)*, page 2, 2023.
- [4] Stefano Bistarelli, Chiara Luchini, and Francesco Santini. A Military IdAM System Based on SSI and ORCON. In *Proceedings of the 2023 IEEE International Workshop on Technologies for Defense and Security*, TechDefense 2023, page 6. IEEE, 2023.
- [5] Stefano Bistarelli, Chiara Luchini, and Francesco Santini. Policy-based Credential Disclosure in SSI by Using Orcon-based Access Control. In *Proceedings of the Sixth Distributed Ledger Technology Workshop (DLT 2024)*, page 15, 2024.

Invited Seminars and Conference Presentations

Conference Presentation

- 2024
 - *Policy-based Credential Disclosure in SSI by Using ORCON-based Access Control*. 6th Distributed Ledger Technologies Workshop (DLT2024), 14-15 May 2024, Torino (TO), Italy.
 - *A Preliminary Study on the Creation of a Covert Channel with HTTP Headers*. ITASEC 2024: The Italian Conference on CyberSecurity, 8-12 April 2024, Salerno (SA), Italy.
- 2023
 - *A discussion on VCs' storage in SSI*. 5th DLT Working Group Meeting on Multidisciplinary Aspects (DLT Workshop 2023), 20-21 December 2023, Università degli Studi di Milano-Bicocca, Milano (MI), Italy.
 - *A Survey of Steganography Tools at Layers 2-4 and HTTP*. The 18th International Workshop on Frontiers in Availability, Reliability and Security (FARES 2023), 29 August - 01 September 2023, Benevento (BN), Italy.
 - *A Military IdAM System Based on SSI and ORCON*. IEEE Workshop on 2023 IEEE International Workshop on Technologies for Defense and Security (TechDefense 2023), 20-22 November 2023, Roma (RM), Italy.
 - *A Word on Policy-based Credential Disclosure in SSI (oral communication)*. 5th Distributed Ledger Technology Workshop (DLT 2023), 25-26 May 2023, Bologna (BO), Italy.

Conference Participation

- 2024 ○ 6th Distributed Ledger Technologies Workshop (DLT2024), Torino (TO), Italy, 14-15 May 2024.
- ITASEC 2024: The Italian Conference on CyberSecurity, 8-12 April 2024, Salerno (SA), Italy.

- 2023 ○ DLT Workshop 2023, 5th DLT Working Group Meeting on Multidisciplinary Aspects, 20-21 December 2023, Università degli Studi di Milano-Bicocca, Milano (MI), Italy.
- TechDefense 2023, IEEE Workshop on 2023 IEEE International Workshop on Technologies for Defense and Security, 20-22 November, Roma (RM), Italy.
- FARES 2023, The 18th International Workshop on Frontiers in Availability, Reliability and Security, 29 August - 1 September 2023, Benevento (BN), Italy.
- DLT 2023, 5th Distributed Ledger Technology Workshop, 25-26 May 2023, Bologna (BO), Italy.

Winter/Summer Schools

- 2024 ○ 5th Scientific School on Blockchain & Distributed Ledger Technologies, 10-13 September 2024, University of Cagliari, Cagliari (CA), Italy.
- XXIII International School on Foundations of Security Analysis and Design, 26-30 August 2024, University Residential Center of Bertinoro, Bertinoro (FC), Italy.
- International Online Winter School on Blockchain Technology and Applications - Hyperledger (Online), 22 - 26 January 2024, University of Camerino, Italy.
- NECS – PhD Winter School 2024, 8- 12 January 2024, Cortina d'Ampezzo (BL), Italy.

- 2020 ○ SUMMER SCHOOL “Python Bootcamp”, 23 January - 23 April 2020, Dipartimento di Matematica e Informatica (DMI), Via Luigi Vanvitelli 1, Perugia (PG), Italy.

Reviewer Activity

- PRIMA 2024
- DLT 2024
- ITASEC 2024
- WTSC 2024
- TechDefense 2023

Personal Data

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base al D. Lgs. 196/2003, coordinato con il D. Lgs. 101/2018, e al Regolamento UE 2016/679.

In compliance with the Italian legislative Decree no. 196 dated 30/06/2003 and the law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I hereby express my consent to process and use my data provided in this CV.