Luca Chiodini

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Education

2020–2025 **Ph.D. in Informatics**, *Università della Svizzera Italiana (USI)*, Lugano (Switzerland)

Expected graduation in July 2025, with a thesis on teaching programming in the domain of graphics, advised by Prof. Matthias Hauswirth.

Mar – Sep 2023: research visit at *Aalto University* (Finland), advised by Juha Sorva.

○ Main author of PyTamaro ⌨: an open-source educational graphics library for Python.
○ Main developer of the PyTamaro Web platform 🌐 to learn programming with activities created by university and high school teachers. Users around the world have executed more than 400 000 programs.
○ Co-advisor of Bachelor's and Master's Theses on Computer Science Education topics.

2018–2020 **Double Master's Degree in Informatics**, *UniMiB and USI*

Graduated with 110/110 cum laude, with a thesis on a qualitative study on mastery checks while learning to program (Computer Science Education).

2015–2018 **Bachelor's Degree in Informatics**, *University of Milano-Bicocca (UniMiB)*, Milan (Italy)

Graduated with 110/110 cum laude, with a thesis on an automatic approach to identify potential binge drinkers on Twitter (Machine Learning & NLP). Participated in an additional cybersecurity program at Politecnico di Milano, ranking second in both the local final competition and the national final (as a team).

2010–2015 **Technical High School**, *ITIS Paleocapa*, Bergamo (Italy)

Graduated with 100/100, with a thesis on an automated spelling correction system.

Sep 2014: Won a bronze medal at the Italian Olympiad in Informatics national final.

Selected Research Publications

The full list is available online 🌐

SPLASH-E '23 Teaching Programming with Graphics: Pitfalls and a Solution 📄

SPLASH-E '22 Expressions in Java: Essential, Prevalent, Neglected? 📄

Koli '21 Wrong Answers for Wrong Reasons: The Risks of Ad Hoc Instruments 📄 (Best Paper Runner-Up)

ITiCSE '21 A Curated Inventory of Programming Language Misconceptions 📄

Experience

2020–2025 **Teaching Assistant**, *Università della Svizzera Italiana*, Lugano (Switzerland)

BSc/MSc Courses
○ Programming Fundamentals 1 — Fall '21
  Introduction to programming using sublanguages of Racket.
○ Programming Fundamentals 2 — Spring '21, '22, '24
  Object-oriented programming in modern Java. Co-author of the course textbook, including assignments.
○ Programming Styles — Fall '23, '24
  Exploring functional programming and programming language concepts in Java, JavaScript, Python, and Haskell.

Courses for High School Teachers
○ Algorithms and Data Structures 1 — Fall '20
○ Programming Language Concepts — Spring '21
○ Didactics of Informatics 1 & 2 — Fall '21 & '22
○ Software Engineering — Fall '22

2022–2023 **Instructor**, *Scuola Universitaria Professionale della Svizzera Italiana*, Locarno (Switzerland)

Co-taught a two-semester course on Didactics of Informatics for prospective high school teachers.

2014–2022 **Olympiad in Informatics**, Italy

○ Created tasks for the International Informatics Olympiad in Teams (editions 2017 – 2022).
○ Trained high school students on problem-solving and algorithms implementation in C++.
○ Organized a yearly Olympiad-style online contest (editions 2014 – 2019).

Natural Languages

Italian Native

English Proficient