

PERSONAL INFORMATION

Davide Rucci

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Date of birth August 8th, 1995 | Nationality Italian

WORK EXPERIENCE

Sep. 2022 – Dec. 2022 **Teaching Assistant**

Dept. of Computer Science, University of Pisa
Largo B. Pontecorvo, 3, 56127 Pisa, Italy

- Teaching support during exercise classes of the “Fondamenti di Informatica” course, first year of the Bachelor degree in Computer Science;
- In-class support to students on theoretical topics (logic, induction, combinatorics, graph theory...).

Sep. 2021 – Dec. 2021 **Teaching Assistant**

Dept. of Computer Science, University of Pisa
Largo B. Pontecorvo, 3, 56127 Pisa, Italy

- Teaching support during exercise classes of the “Fondamenti di Informatica” course, first year of the Bachelor degree in Computer Science;
- In-class support to students on theoretical topics (logic, induction, combinatorics, graph theory...).

Feb. 2021 – Jul. 2021 **Lab. Teaching Assistant**

Dept. of Computer Science, University of Pisa
Largo B. Pontecorvo, 3, 56127 Pisa, Italy

- Teaching support during lab classes of the “Sistemi Operativi e Laboratorio” course, second year of the Bachelor degree in Computer Science;
- Online and in-class support to students on both coding and theoretical topics.

Feb. 2020 – Jul. 2020 **Lab. Teaching Assistant**

Dept. of Computer Science, University of Pisa
Largo B. Pontecorvo, 3, 56127 Pisa, Italy

- Teaching support during lab classes of the “Algoritmica e Laboratorio” course, first year of the Bachelor degree in Computer Science;
- Online and in-class support to students on both coding and theoretical topics.

Feb. 2019 – Jun. 2019 **Counselor**

Dept. of Computer Science, University of Pisa
Largo B. Pontecorvo, 3, 56127 Pisa, Italy

- Counseling activity for the “Algoritmica e Laboratorio” course, first year of the Bachelor degree in Computer Science;
- One-to-many weekly office hours to help students with coding. Theoretical and practical exercises;
- Writing teaching support material, including solved exercises with theoretical explanations.

EDUCATION

Nov. 2020 – Jan. 2024 **PhD in Computer Science**

University of Pisa, Pisa, Italy

- Supervised by prof. Roberto Grossi and dott. Alessio Conte
- Subjects: enumeration algorithms for community detection in graphs, community analysis in graphs, temporal graphs.

Sept. 2017 – Oct. 2020 **Master's Degree in Computer Science**

University of Pisa, Pisa, Italy

- Curriculum: Data & Knowledge - Science and Technologies;
- Thesis title: "Listing Large Cliques in Real-World Graphs". Supervised by prof. Roberto Grossi and dott. Alessio Conte;
- Grade: 110/110 *cum laude*;
- Principal subjects: algorithms, algorithm engineering, graphs, combinatorics.

Sept. 2014 – Oct. 2017 **Bachelor's Degree in Computer Science**

University of Pisa, Pisa, Italy

- Grade: 110/110 *cum laude*.
- Thesis title: "The Minimal Representative Selection Problem: Applications, Optimal Algorithms and Efficient Heuristics". Supervised by prof. Anna Bernasconi. It has been published in a 2019 paper for a workshop on Boolean problems, then it was printed in a book of selected papers [1].
- Principal subjects: algorithms, combinatorics, sets, graphs, heuristics, switching lattices.

Jun. 2014 **High School**

ITIs Galileo Galilei
Livorno, Italy

- "Informatica ABACUS" course;
- Grade: 100/100.

PUBLICATIONS

- [1] Anna Bernasconi, Fabrizio Luccio, Linda Pagli, and Davide Rucci. "Literal Selection in Switching Lattice Design". In: *Advanced Boolean Techniques: Selected Papers from the 13th International Workshop on Boolean Problems*. Ed. by Rolf Drechsler and Mathias Soeken. Cham: Springer International Publishing, 2019, pp. 159–175. ISBN: 978-3-030-20323-8. DOI: 10.1007/978-3-030-20323-8_7. URL: https://doi.org/10.1007/978-3-030-20323-8_7.

PERSONAL SKILLS

Mother tongue Italian

Other languages

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	B2	C1	B2	B2	C1
B2 Certification by Centro Linguistico Interdipartimentale (CLI) of Università di Pisa					

Levels: A1 and A2: Basic user – B1 and B2: Independent user – C1 and C2: Proficient user
[Common European Framework of Reference for Languages](#)

Programming Languages Skills

- Deep knowledge of C, C++, Java (both mono- and multi-threaded) and Python;
- Experience with Haskell, OCaml, PHP, JavaScript, HTML and CSS.

Other Skills

- Teaching and Communication: during my period both as a counselor and as a teaching assistant I did multiple collective meetings with groups of students with which I held lessons to. I organized the lessons (topics, material etc.) by myself;
- Tutoring: I have experience in tutoring people especially on computer science arguments;
- Collaboration and Team Work: I have experience with group projects and the distribution of work between members of a group. I find sharing my current work and results with others deeply useful and necessary at the same time. I always look forward for a constructive debate with my coworkers that can clear doubts, enrich viewpoints and give/get new ideas for our respective works.

Research Interests

- Algorithms
- Graphs
- Enumeration
- Data Structures
- Algorithm Engineering
- Complexity Theory

Driving licence

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