

Riccardo Kiefer

Curriculum vitae et studiorum

Torino, IT

* 19 July 1998

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Education

- 2021–2025 **Master's Degree in Mathematical Engineering**, *Politecnico di Torino*, Torino, IT, 108/110
- 2017–2021 **Bachelor's Degree in Mathematics for Engineering**, *Politecnico di Torino*, Torino, IT, 90/110
- 2012–2017 **Scientific High School Diploma**, *Liceo Scientifico Statale 'L. Da Vinci'*, Pescara, IT, 100/100 cum laude

Master thesis

- Title *Development of a data-driven surrogate model for street-scale prediction of NO_x passive scalar concentrations in the San Salvario district of Turin*
- Supervisors L. Ridolfi (Politecnico di Torino), P. Salizzoni (École Centrale de Lyon)

Experience

Academic

- 03/2025–06/2025 **Research Internship for Master's Thesis**, *École Centrale de Lyon*, Lyon, FR
Developed a data-driven surrogate modelling framework for street-scale NO_x concentration prediction in the San Salvario district of Turin, using SIRANE simulations as reference data.
- 2023–present **Cryptography Division Member**, *BitPolito*, Torino, IT
Contributed to a student initiative focused on Bitcoin, blockchain and cryptography, supporting research and development activities related to decentralized technologies and cryptographic tools.

Additional experience

- 07/2016–08/2016 **Summer Media School**, *MIUR*, Chieti, IT
Participated in an international summer programme combining physics, communication and collaborative project work. Contributed to the design of an eco-sustainable gym integrated within historical architecture, with attention to renewable energy, natural ventilation and preservation of cultural heritage.
- 2014–2017 **High School Tutor**, *Liceo Scientifico Leonardo da Vinci*, Pescara, IT
Provided private tutoring in mathematics and physics to high school students.

Innovation

- 2025–present **Patent-related activity**, *Biocomposite material for fertilizing in agriculture*, Politecnico di Torino
Contributed to a patent application currently under review.
Activities included prior-art analysis through patent dataset mining, abstract text analysis, similarity-based classification, market assessment and competitor analysis.

Digital skills

Coding:	■■■■■	Python	<i>numpy, scipy, scikit-learn, networkx, tensorflow, pandas</i>
	■■■□□	R	<i>Statistical analysis on large datasets</i>
	■■■■□	bash	<i>ssh, sbatch and high performance computing</i>
	■■■■■	MATLAB	<i>scientific computing, numerical optimization</i>
OS:	■■■■□	Linux	
	■■■■■	Windows	
Tools	■■■■■	L ^A T _E X	<i>writing documents, articles and papers</i>

Languages

Native Italian

		UNDERSTANDING		SPEAKING		WRITING
		Listening	Reading	Interaction	Production	
Other languages	English	C1	C1	C1	C1	C1
	German	B2	B2	B1	A2	A2
	French	B1	B1	B1	A2	A2

Interests

- Complex systems Interest in human sciences, complex systems and the interaction between social, cultural, political and economical dimensions.
- Technology and creativity Applied problem solving and creative approaches to technical challenges.
- Cryptography and blockchain Bitcoin, decentralized technologies, cryptographic tools.

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