

Lisa PARUIT

Graduate student in Mathematics for Life Sciences

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[LinkedIn](#) | [GitHub](#)

Education

MSc Mathematics for Life Sciences 2024-2025 (pending) ¹

Ecole Polytechnique, Palaiseau (France)

Mathematical modeling for biology and life sciences with an emphasis on stochastic modeling for ecology and population dynamics.

MSc Plant and agricultural sciences 2022-2025 ²

AgroParisTech, Palaiseau (France)

Agricultural science pathway ranging from plant biology to agrifood-sector economics. Emphasis on statistics and data sciences for environmental sciences and agronomy.

Classe Préparatoire aux Grandes Ecoles (BCPST) 2020-2022

Lycée Fénélon, Paris VI (France)

Strong ground formation in Biology, Mathematics, Chemistry, Physics and Planetary Sciences.

Leaving Certificates (Highers) 2020

Yeats College, Galway (Ireland)

Grades: Mathematics H1, Physics H1, Chemistry H1, Biology H2, Art H1, English O2.

Relevant external courses taken

Mathematics for quantitative and evolutionary genetics Oct-Dec 2024

Ecole Normale Supérieure, Paris (France)

40h course on the mathematical basis of genetics theory applied to recurrent biology problems.

Geostatistics course Nov 2023

Ecole des Mines, Paris (France)

30h course of geostatistics theory and associated computational methods. Project-based assessment.

Research experience

Research Assistant (Internship) - Agroecology Dpt. University of Barcelona (Spain)

May 2024 - July 2024

Lead: Dr. Laura Armengot Martinez

Description: Literature review, paper design and data analysis for a meta-analysis on sustainable cocoa production worldwide.

¹This is a research oriented master's degree. Although it is not an MRes, more than half of the validation relies on project-based evaluation: (i) one research project lead during the first semester and (ii) one 5 to 6 months internship in a research lab during semester two. More info about the contents and curriculum can be found [on the masters' website](#).

²As part of my *Diplôme d'ingénieur*, I studied 2 years at AgroParisTech (Bachelor and Master 1 level). I am now finishing up my studies with a final year in a research-oriented Master's of mathematics at the Ecole Polytechnique.

Research Assistant (Internship) - Bona Planta inc., Barcelona (Spain)

April 2024 - May 2024

Lead: Dr. Pierre Hohmann

Description: Literature research and design of an analytic framework for improving plant microbiome data treatment in GWAS. More details in my [activity report](#).

Research Assistant (Volunteering) - MICALIS Lab. INRAE, Jouy-en-Josas (France)

November 2023 - January 2024

Lead: Pfr. Pierre Laurraufie

Description: Observation, literature reading and laboratory manipulation in cell biology, using organoid technology.

Other work experience

Market analysis for developpment of biocontrol solutions - Agriodor, Paris (France)

July 2024 - September 2024

Description: The mission was to collect and analyse data on the potential demand for biocontrol solutions in the USA. This included literature research on sap-sucking insects and local agriculture, connecting with scientific experts and designing a numerical model of the marketplace in different geographical regions.

Agricultural engineer (Internship) - Ferme des Aubracs de Bouton, Désaignes (France)

April 2023 - May 2023

Description: Agronomic assessment of the farm. Understanding and analysing the stakes of extensive livestock farming with total folder autonomy.

Other skills and experience

Spoken languages

French : Mother tongue

English : Fluent (C1)

German : Intermediate proficiency (B1)

Coding skills ³

Python : Excellent knowledge of python in both procedural and object-oriented programming. My skills range from data analysis with seaborn, pandas, etc. to interface programming with Tkinter and machine learning using Scikitlearn.

SQL : Good proficiency with knowledge of how to include SQL commands in python programs.

R : Good proficiency. I lead several projects using this language and took many courses requiring R skills.

Interest and other volunteer work or activities

- Facilitator for *La Fresque du Climat*, an association that aims to raise awareness about climate change and the global environmental crisis.
- Climbing, hiking, free-water swimming, outdoor activities.
- Arts and painting. Set designer in a theater play. Vice-president of the fine arts club at AgroParisTech.
- Head of the student association in charge of organising the school gala in 2023 at AgroParisTech (social event of more than 800 people and 50 000€ budget).

³Coding samples can be found on my GitHub.