

GAIA CORONA

PHD STUDENT IN DATA
SCIENCE AND COMPUTATION



PROFILE

I am a **highly motivated** and **curious** PhD student with a strong analytical mindset and a problem-solving approach. My research interests focus on **computational genomics**, with particular emphasis on the development and application of **multi-omics analysis methods** and **machine learning models**, as well as on the **development of cloud infrastructures** for computational multi-omics. Through research projects and teamwork, I have developed the ability to work efficiently under pressure, adapt to challenges, and take on leadership roles when needed. With a creative mind and always up for new challenges, group and personal successes are my goals.

SKILLS

- **Bioinformatics tools:** Python (Pandas, Numpy, Pysam, Scikit-learn, Biopython), R, Linux, HTML, Nextflow, Slurm, Samtools
- **Data mining and management:** Organization and handling of biological databases, algorithm design, and optimization
- **Soft skills:** Problem-solving, communication, teamwork, leadership, public speaking.

- 📅 Date of birth: September 08 2001
- 🌐 **Italian** (native speaker), **English** (C1)
- 📞 (+39) 3450667806
- ✉️ gaia.corona01@gmail.com
- 👤 [linkedin_profile_gaiacorona](#)

PROJECTS

- **Research Intern, LCQB – Sorbonne Université, Paris** (Feb–Jul 2025) - “**Gene copy number variations in ancient and modern human populations.**”
- **Research Intern, Sant'Orsola-Malpighi Hospital, Bologna** (Feb–Jul 2023) - “**Improving pipelines for clinical interpretation of structural variants in 561 COVID-19 patients.**” Built a SVs analysis workflow in Nextflow using CANVAS and Manta. Developed and integrated in-house Python scripts for filtering and downstream interpretation.

EDUCATION

PhD in Data Science and Computation - University of Bologna, Italy

November 2025 - Present

- PhD candidate in Data Science and Computation within a joint project between the National Institute for Nuclear Physics (INFN) and the IRCCS Azienda Ospedaliero-Universitaria di Bologna (**Policlinico di Sant'Orsola**).

Master's Degree in Bioinformatics - University of Bologna, Italy

October 2023 - September 2025

- Erasmus+ Studio Scholarship for a semester abroad at **Sorbonne Université, Paris** (Spring 2025)
- Proficiency in handling large molecular datasets and developing algorithms for genomic analysis.
- Graduated with top marks (110/110 cum Laude).

<https://corsi.unibo.it/2cycle/Bioinformatics>

Bachelor's Degree in Genomics - University of Bologna, Italy

November 2020 - July 2023

- Knowledge of genetics, biochemistry and molecular biology, as well as skills in programming, algorithms and data mining.
- Graduated with top marks (110/110 cum Laude).

<https://corsi.unibo.it/1cycle/Genomics>

EXTRACURRICULAR ACTIVITIES

- **Speaker**, MSc Orientation in Bioinformatics – University of Bologna (2025)
- **Speaker**, High School Orientation & science outreach events – Liceo G. Rummo (Sep 2023, Apr 2025)
- **Student Representative**, MSc in Bioinformatics – University of Bologna (2023–2025)
- **Student Representative**, Liceo Scientifico G. Rummo – Benevento (2017, 2020)
- **Participant**, Women in STEM and UniStem Day – Scientific presentations judged by university faculty (2019)