

CONTACT

Leuven, 3001
Belgium

Upon request

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GITHUB



SKILLS

Coding > 5 years

Bash | Python | R

IT > 5 years

Linux | Terminal | Remote Clusters

Scientific-Research >5 years

Data mining | Interpretation

Data Analysis & Visualization >5 years

R (ggplot) | Python (pandas)

Google Drive tools, MS Office etc

SOFT SKILLS

Working independently

Complex Problem-Solving

Critical Thinking

Proactivity

Collaboration

Adaptable

Analytical Software applications

Presentations

Communication

Teaching

Open to travel

LUDOVICA MOLINARO

PROFILE

Experienced researcher with a biological and genetic background and strong passion on data mining and coding, with pipelines published in scientific articles. I have worked in different European countries as doctoral and experienced researcher, acquiring strong project management and leadership skills, balancing independent work as well as (international) team work. Driven, proactive and resourceful: I am looking for a working environment where I can put my skills into practice, further learn, grow and evolve my professional advancement.

WORK EXPERIENCE

Researcher

KU Leuven, Belgium

Sep '22 - NOW

Responsible for conceptualizing and managing projects through computational analyses and interpretations of the results. Responsible for teaching and training students.

- Developed a methodology available through an R package to detect genetic ancestry, outperforming in computational time, scalability and accuracy many other common used tools.
- Developed workflows and processes to automate bioinformatics analyses for the whole team
- Collaborated with colleagues with a non-computational background, in order to develop experimental designs as well as bioinformatics pipelines to accelerate their analyses
- Coordinated the work between team members of other international institutions remotely
- Contributed to an anthropology manual book and wrote articles for non-scientific audience to popularize science

Junior Researcher | Doctoral Researcher

The Estonian Institute of Genomics, Estonia

May '18 - June '22

Responsible for designing and managing several projects, testing and performing computational analyses. All projects required data mining and interpreting the results, to eventually present them in the form of reports, scientific papers and oral presentations. Won multiple academic awards for best presentation and a prestigious award for exceptionally promising students.

- Developed a novel tool for genetic analyses R & Python-based for detecting genetic ancestry and discovering complex demographic events through ancient and modern DNA.
- Worked cooperatively with an international team, as well as networking with scientists from other international institutes, producing over 9 scientific papers in four years
- Presented my research very efficiently to different constituencies of all levels, such passion and predisposition lead me to teach several university courses, particularly 'Communication of Science' course where I trained students to deliver an effective, expressive and original speech

EDUCATION

2018 - 2022

PhD in Genetics

University of Tartu, Estonia

Field: Gene technologies and their applications in population genetics

2016 - 2018

MSc in Biology

University of Padua, Italy

Field: Genetics and its applications in anthropology and human evolutionary biology

2013 - 2016

BSc in Biology

University of Ferrara, Italy

Field: Genetics and its applications in linguistics



AWARDS

Scholarships

2020 - Won Dora+ Scholarship for visiting doctoral students

2018 - Won the Ermenegildo Zegna Scholarship for exceptionally promising students

Awards

2019 - Best talk at the Italian Association of Anthropologists Conference, Padua, Italy

2019 - Best talk at the Institute of Genomics & Institute of Molecular and Cell Biology Conference, Tartu, Estonia

COURSES

Held

2019-2020 - **Communication of Science** (eng), trained students to deliver an effective, expressive and original speech, University of Tartu, Estonia

2019 - **Molecular Anthropology** (eng), practical course to perform genetic analyses, University of Padua, Italy

2019 - **Evolution and the Natural World** (eng), lecture on biology of organism in the light of evolution, University of Tartu, Estonia

Programming

2021 - **CodeInPlace** workshop on python programming, held by University of Stanford, online.

2019 - **CodeRefinery** workshop on: automated testing, open software development and modular code development by The Nordic e-Infrastructure Collaboration, Tartu, Estonia

Genetics

2018 - Analyses of genotyping and sequencing data in medical and population genetics' in Copenhagen, Denmark

SELF-IMPROVEMENT

Free Training on online platforms

Studying in my free time the following courses:

Pandas Intermediate course

Machine Learning Beginner course

LPIC -1 101, from Linux Professional Institute

Statistics and Computer Science

Project Management

Negotiations