



## Larisa Sarghie

**Date of birth:** 01/09/1995

**Home:** Bulevardul Republicii 148B, Building C3, Unit 52, 100072 Ploiesti (Romania)

### ABOUT ME

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Passionate and highly motivated bioinformatician with 5+ years of experience, including 2 years in industry software development and 3+ years in academic research. Designed and led a Fulbright-sponsored PhD in systems biology, exploring genetic and microbial determinants of longevity. Expertise in scalable pipelines, large-scale data analysis, and multi-omics integration. Proficient in Python, R, Unix, databases, and cloud platforms (AWS). Skilled in agile workflows, and project management tools. Strong communicator, driven to advance drug discovery and precision medicine through innovative bioinformatics.

You can provide a description of yourself here...

### WORK EXPERIENCE

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#### Bioinformatician

**"Iuliu Hatieganu" University of Medicine and Pharmacy** [ 01/12/2023 – Current ]

City: Cluj-Napoca | Country: Romania

- Designed strategy and pipelines to evaluate therapeutic targets and precision biomarkers in Lung Squamous Cell Carcinoma, integrating genetics, metabolomics, and causal disease biology. Managed and analyzed bulk and single-cell RNA-seq data using machine learning, leveraging TCGA and proprietary datasets for multi-omics and spatial transcriptomics insights.

#### Business developer

**Artificial Intelligence Expert** [ 01/04/2024 – 01/07/2024 ]

City: Cluj-Napoca | Country: Romania

- Short-term contract leveraging AI to boost startup visibility. Presented results at the OPADE annual meeting, aligning with EU objectives. Collaborated with the Microsoft team to develop a go-to-market strategy. Utilized Natural Language Processing (NLP) to automate repetitive tasks and create/train an AI-powered business development assistant.

#### Fulbright researcher

**University of California Los Angeles (UCLA)** [ 09/2022 – 06/2023 ]

City: Los Angeles | Country: United States

- Applied a systems biology approach to investigate the interplay between the Parkin gene, microbiome dynamics, and longevity in *Drosophila melanogaster*, with implications for Parkinson's disease. Integrated

multi-omics data to explore mitochondrial health, cytosolic mtDNA, and aging, uncovering key mechanisms linking microbial composition to neurodegeneration.

## Bioinformatician

**QIAGEN** [ 07/2021 – 01/2023 ]

City: Aarhus | Country: Denmark

- Analyzed large volumes of scRNA-seq datasets for cell type identification, evaluated machine learning tools for data accuracy, and maintained up-to-date reference datasets for advanced genomic analyses.
- Managed and optimized CLC Microbial Genomics Module databases, implementing innovative enhancements and maintaining comprehensive documentation. Designed and developed algorithms to improve microbial data analysis efficiency and accuracy.

## MolecularBiologist

**"Matei Bals" National Institute of Infectious Diseases** [ 12/2020 – 07/2021 ]

City: Bucharest | Country: Romania

- Contributed to Romania's largest infectious disease institute during the pandemic, performing NGS and qPCR diagnostics and screenings for SARS-CoV-2, ensuring accurate genomic analysis and supporting public health efforts.

## Bioinformatician

**Systems Biology of Aging Group** [ 05/2019 – 12/2020 ]

City: Bucharest | Country: Romania

- Curated and enriched the SynergyAge Database, applying a systems biology approach to classify longevity-associated genes and interventions. Integrated multi-omics data to refine biological insights, leveraging Python for large-scale data analysis and optimization.

## Molecular biologist

**Genetic Center** [ 10/2018 – 03/2019 ]

City: Bucharest | Country: Romania

- Performed screening assays for genetic conditions such as cystic fibrosis, hereditary thrombophilia, and infectious diseases like toxoplasmosis and cytomegalovirus. Utilized techniques including MS-MLPA, MLPA, QF-PCR, qPCR, and NGS sequencing for accurate genetic diagnostics and analysis.

## EDUCATION AND TRAINING

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### Ph.D. candidate

**Institute of Biochemistry of the Romanian Academy** [ 10/2019 – Current ]

City: Bucharest | Country: Romania

### M.Sc.

**University of Bucharest** [ 10/2017 – 07/2019 ]

City: Bucharest | Country: Romania

### B.Sc.

**University of Bucharest** [ 10/2014 – 07/2017 ]

City: Bucharest | Country: Romania

## VOLUNTEERING

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[ 11/2020 – 05/2024 ] Bucharest

### Head of Training

- Discuss with students and researchers in Romania to identify training demands Identify appropriate expertise and trainers - Ensure logistics for delivering training
- Organize and coordinate training events:
  - BEER & SCIENCE | April 2024
  - ELIXIR Romania Webinar | March 2024 by Elixir in collaboration with RSBI
  - BEER&SCIENCE | Nov 2023 by RSBI in collaboration with UMF Cluj-Napoca
  - HACK YOUR GENOME | June 2022 by RSBI in collaboration with Just-DNA-Seq
  - BEER&SCIENCE | May 2022 by RSBI in collaboration with GeneKor
  - BIOLOGY MEETS CODE | May 2022 2 days of hands-on workshop
  - AI&ML IN SCIENCE @12th RoBioinfoWebinar | July 2021
  - CANCER GENOMICS @11th RoBioinfo Webinar | June 2021
  - METAGENOMIC EVENT @9th RoBioinfo Webinar | April 2021
  - THE ANTIMICROBIAL RESISTANCE EVENT public engagement | November 2019
  - BEER & SCIENCE RSBI EVENT - PERSONALIZED MEDICINE | October 2019

Link: <https://rsbi.ro/>