

GABRIELA FRAJTAG

+55 (21) 98961-2506 | gabriela.frajtag@gmail.com | [LinkedIn](#)

SUMMARY

Undergraduate student at Ilum School of Science, driven by curiosity and a love for learning. Intrigued by the interdisciplinary nature of fields such as biology, data science, and mathematics, and excited to explore their intersections. Passionate about education and dedicated to inspiring others through knowledge sharing and scientific divulgation.

EDUCATION

ORT Institute of Technology

Technician in Biotechnology

Rio de Janeiro, Brazil

Jan. 2020 – Dec. 2022

BS Ilum School of Science, Science and Technology

Expected Bachelor of Science in Science and Technology

Campinas, Brazil

Feb. 2023 – Dec. 2025

EXPERIENCE

Kupcinet-Getz Program - Weizmann Institute

July 2024

Internship

- Worked in the Laboratory of Ribosome Structure and Function Lab under the supervision of Ada Yonath, Nobel Prize in Chemistry (2009).
- Conducted experiments on ribosome purification and gained experience in structural biology using Cryo-EM.
- Acquired proficiency in using Coot software for molecular structure modeling and refinement.
- Investigated molecular mechanisms of antibiotic resistance mediated by bacterial ribosome modifications.

Internship at the Brazilian Biorenewables National Laboratory

February 2024

CNPq

- Worked in the Synthetic Biology and Biocatalysis Laboratory.
- Utilized techniques for engineering heterologous proteins.
- Focused on cloning, expression, and purification strategies of decarboxylase enzymes.

Internship at the Brazilian Biosciences National Laboratory

July 2023

CNPq

- Worked in the Immunology Group, enhancing molecular biology and immunology skills.
- Applied techniques such as cell culture, viral transduction, and flow cytometry.
- Investigated RNA interference (RNAi) for transcriptional silencing of the FOXP3 gene in the context of the immune response to cancer.

I Bioinformatics School

2024

Ilum School of Science

- Studied genomics and DNA sequencing.
- Learned to process biological data using High-performance Computing.

I Mathematical Modelling School

2024

Ilum School of Science

- Attended classes on mathematical modeling with differential equations and fuzzy logic.

II Machine Learning School

2023

Ilum School of Science

- Participated in theoretical and practical classes on various machine learning techniques.

- Explored applications in material science.

I Biological Images School

2023

Illum School of Science

- Attended theoretical classes on microscopy and data processing.
- Learned about artificial intelligence applications.

Munich NeuroCamp (Ludwig Maximilians University) (online)

2022

Neuroscience & Biotech Summer Program

- Participated in programs focusing on neurological disorders.
- Developed an Artificial Intelligence model for species identification.

Lemelson-MIT-Biogen Community Lab

2021

Summer Program

- Engaged in projects related to Biotechnology, with a focus on neurodegenerative diseases.

Stanford Program for Inspiring the Next Generation of Women in Physics (online)

2021

Summer Program in Physics and Computing

- Collaborated with the Kavli Institute for Particle Astrophysics.
- Enhanced Python skills and learned about cutting-edge research in physics.

IBM Scholarship, 'Qubit x Qubit' Quantum Computing course (online)

Attending lectures on modern/quantum physics

- Interacted with mentors and gained hands-on experience in Python/Qiskit programming.

EXTRACURRICULAR ACTIVITIES

Chazit Hanoar Hadrom Amerikait (Jewish Youth Movement)

- Served as a Leader ('Madricha') and Member since 2011. (age of 6)
- Supervised educational and recreational activities for approximately 20 children/teenagers.
- Organized two annual in-state trips.

Guardians of Education (NGO)

- Tutored English, Chemistry, and Astronomy to younger students as a volunteer from 2020 to 2021.
- Provided one-to-one lessons to approximately 9 students for competition preparation.

Counselor, Etapa SigmaCamp (2024)

- Served as a Counselor at the first edition of SigmaCamp in Brazil.
- Teaching Assistant in a course on Game Theory.

HONORS AND AWARDS

Brazilian Brain Bee 2022 (National Neuroscience Olympiad): 2nd place out of 4000 participants.

National General Sciences Olympiad (Astronomy/Biology/Chemistry/Physics): Gold '22 & '21, Silver '20.

Brazilian Robotics Olympiad. Practical & Theory categories: Bronze '22, Silver '21, Gold '19 & '18.

National Synthetic Biology Olympiad, organized by

USP (Public university): Gold '22 & '21.

International Mathematics Competition, Math Kangaroo: Gold '22, Silver '21, Bronze '20 & '19. Top 1%.

Brazilian Robotics Olympiad: Gold '18 & '21, Silver '22, Bronze '19.

Natural Sciences National Olympiad: Gold '21 & '22 with 1.5m+ participants, Silver '20

Astronomy Olympiad: Gold '21 & '22. Invitation for the selection to the International Olympiad on Astronomy and Astrophysics.

Brazilian Biology Olympiad 2021: Bronze Medal. Top 150 out of 45,000 students.

Brazilian Financial Education Olympiad: Gold '20 & '21

Virtual Physics Olympiad 2022: Bronze Medal.

International "Canguru" of Mathematics Olympiad: Gold '22, Silver '21 & '20

Linguistics Olympiad 2020: Silver Medalist (25th place/2600). 3rd place in state's ranking, top 40 in national ranking. Invitation for the selection to the International Linguistics Olympiad.

Brazilian Chemistry Olympiad 2019: Bronze Medal and Invitation to the Olympic School of Chemistry.

SKILLS

Software: Microsoft Office, Visual Studio, Adobe Premiere, Photoshop

Languages: Native Portuguese, Fluent English, Intermediate Hebrew, Beginner French

Programming Languages: Python, JavaScript, C++