YARITZEL VIDAL

EDUCATION

- High School Diploma 2024

SPACE CONNECTIONS - ORGANIZATION

July 2025 - Present

- I lead the Digital Design and Content department and am an active member of the Research and Educational Content department at an international organization run by aerospace engineering students from elite universities. I oversee the creation of visual identity and key materials for external communication, as well as translating complex space concepts into educational content accessible to young people.

INTINUATA RESEARCH CENTER

November 2025 - Present

- I was selected to join a competitive youth center for aerospace research in Peru. I started in the youth research incubator and was subsequently incorporated into the Instituto de ciencias espaciales del Peru (ICEP), working alongside a multidisciplinary team of young researchers.

QUANTUMQUARKS - FUNDATION

December 2025 - Present

- Active volunteer at a science communication foundation dedicated to democratizing access to scientific knowledge across Latin America, with a special focus on rural communities. I contribute by researching and creating educational content for social media, as well as designing visual materials that make complex physics concepts accessible and engaging for children and young audiences, helping to break down barriers to science education.

LATIN AMERICAN LEADERSHIP ACADEMY (LALA)

April 2025 - Present

- I was selected to participate in a highly competitive leadership program in Latin America dedicated to fostering socio-emotional development, critical thinking, and social impact. I completed the camp and am currently part of its network of change-makers as a LAlider.

TOWARDS A UNIFIED RELATIVISTIC REFERENCE FRAME FOR LUNAR NAVIGATION IN THE ARTEMIS ERA

April 2025 - Present

- Lead author of an accepted paper to be presented at the International Astronautical Congress. I am analyzing the relativistic formalism developed by Slava Turyshev for lunar navigation and translating the predicted time shifts into distance errors for three critical scenarios of the Artemis program, as well as operational requirements for systems such as LunaNet and Moonlight.

MULTIMODAL COUNTERMEASURE FRAMEWORK FOR SPACEFLIGHT ASSOCIATED NEURO-OCULAR SYNDROME

June 2025 - Present

- Paper accepted at the Congreso Espacial Centroamericano, where I am a co-author of a systematic review that synthesizes the main countermeasures against SANS. We evaluate the synergy between LBNP, venous bands, artificial gravity, hydrogen-enriched water, and 25-HC, and propose a multimodal framework that takes into account predisposing factors, sex differences, and early detection. The goal is to lay the groundwork for precision space medicine, which is key to future lunar and Martian missions.

AMBASSADOR OF IAAC

June 2025 - Present

- I was appointed by the leadership of the International Astronomy and Astrophysics Competition to lead expansion initiatives and projects in Latin America. My mission is to democratize access to space sciences and make them more accessible to young people through talks, workshops, and events.

FOUNDER OF STRING DIMENSION - ORGANIZATION

June 2025 - Present

- Founder of a science outreach organization currently in its launch phase that aims to bring physics and space closer to young people in Latin America. We are currently accepting applications to build our founding team and defining the initial focus of our digital content and workshops.

A SMALL-SPACECRAFT INTERSTELLAR MISSION TO PROXIMA CENTAURI

August 2025 - Present

- Co-author of a paper accepted for presentation at the International Astronautical Congress. Selected by the instituto de ciencias espaciales del Peru (ICEP) to conduct research on mission architecture for a mission to Proxima Centauri, analyzing cruise velocity, payload, energy autonomy, and interstellar data transmission."

MERIT-BASED SCHOLARSHIP (70% TUITION COVERAGE) – LATIN AMERICAN LEADERSHIP ACADEMY

- Selected among hundreds of applicants across Latin America to receive a competitive partial scholarship based on leadership potential, critical thinking, and commitment to social impact. The program brings together exceptional young changemakers to design transformative projects for the region.

TOOLS AND SKILLS

- **Scientific data analysis (classification and patterns)**
- **Python for data analysis**
- **Scientific thinking and hypothesis formulation**
- **Science outreach and written communica**
- **Graphic design applied to science**
- **Collaborative work in international settings**
- **Independent learning and personal project management**

