

Nícolas Léo Moreira

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EDUCATION

University of Calgary, Schulich School of Engineering

Bachelor of Sciences - Major in Sustainable Systems Engineering and Minor in Digital Engineering (GPA: 3.4/4.0)

Calgary, Canada

Sep, 2022 - May, 2026

Escola Santo Tomás de Aquino

Middle and High School (GPA: 3.7/4.0)

Belo Horizonte, Brazil

Feb, 2011 - Dez, 2021

Ironside State School

Middle School

Brisbane, Australia

Feb, 2009 - Dez, 2010

PROFESSIONAL EXPERIENCES

Summer Intern, Biome Renewables

Summer 2024 | Toronto, Canada (Remote)

- Developed an Excel sheet to streamline company processes, enhancing efficiency and accuracy in data management.
- Conducted comprehensive market research to identify potential customers, contributing to strategic business development initiatives.
- Assisted in modeling an existing design, supporting the engineering team in refining product specifications and performance.

Junior Researcher, Manufactured Ecosystems, University of Calgary, University of Guelph & NASA

Jan, 2024 - Present | Calgary, Canada

- Conducted research on the Manufactured Ecosystems project, focusing on the integration of biomimetic technologies to replicate essential ecosystem services in response to the global decline of natural ecological functions, highlighting the urgency for adaptation strategies beyond traditional conservation efforts.
- Collaborated in a multidisciplinary team to curate an open-access database, identifying existing and theoretical technological proxies for ecosystem services, laying the groundwork for innovative solutions to combat ecological collapse and contribute to sustainable futures.
- Directed the design and execution of both virtual and physical exhibitions using AI image-generating software, aiming to immerse the public in the concept of manufactured ecosystems. By leveraging speculative fiction and bio-art, the exhibitions fostered a transformative narrative on climate action and the role of technology in sustaining life post-climate failure.

Junior Researcher, Chickadee Challenge, University of Calgary & Sustainable Calgary

May, 2023 - Present | Calgary, Canada

- Designed and structured the Chickadee Challenge Program, a comprehensive educational initiative aimed at combating climate change and fostering nature-based solutions. Collaborated with teachers, students, and experts at Sustainable Calgary to create a program that aligns with educational objectives and engages students effectively.
- Conducted research related to potential biomimicry strategies in Alberta species, contributing valuable insights to the program's emphasis on nature-based solutions for combating climate change.
- Developed a diverse range of educational materials, including activity books, workshop schedules, and learning outcomes. Ensured the content was engaging, informative, and visually appealing, catering to the needs of young learners in a program that emphasizes the use of nature-based solutions.

Budget Department Intern, Maya Energy

Mar, 2022 - Jul, 2022 | Belo Horizonte, Brazil

- Organized the budget department, streamlining functions and enhancing processes through the development of new tools, contributing to the success of the department and organization.
- Created an Excel spreadsheet to track daily tasks and production of each member, resulting in improved efficiency and the implementation of a merit-based reward system for high-performing individuals.
- Designed SolarEdge systems to enhance customer experience by providing visual representations of proposed solar panel layouts.

LEADERSHIP EXPERIENCES

S4E Founder and President, University of Calgary

Sep, 2023 - May, 2024 | Calgary, Canada

- Founded and led the Student Society for Sustainable Systems Engineers, guiding its growth as the inaugural president. This role involves overseeing a dedicated team of 20+ students, collaborating with students, professors, and industry professionals, and actively engaging both on and off-campus communities to create sustainable systems engineering-related events.
- Leading a pioneering project to construct a hydroponic system on campus, aimed at establishing a network for food donations to Calgary food banks.
- Organized a successful Sustainable Industry Fair with over 150 students from 22 faculties and 12 companies, highlighting the importance of sustainability across industries and facilitating meaningful discussions on integrating sustainability practices.

Hydrogen Eco-Car Club Design Team Member, University of Calgary

Jul, 2023 - Jan, 2024 | Calgary, Canada

- Collaborate with fellow team members to design and develop an hydrogen-powered eco-car that is energy-efficient, environmentally friendly, innovative, and prepared to compete in various competitions, such as the Shell Eco-Marathon
- Participate in brainstorming sessions to conceptualize designs, create detailed blueprints, and develop prototypes. Contribute to the design and improvement of key components like fuel cells, energy storage systems, and power distribution.

EEESA First Year Representative, University of Calgary

Oct, 2022 - May, 2023 | Calgary, Canada

- Founded the position of the Energy and Environment Engineering Student's Association's First Year Representative, where I acted as a liaison between first-years and the EEESA council.
- Collaborated with Vice Presidents to plan and execute events aimed at engaging and educating the environmental engineering community in Calgary.
- Conceived and executed an educational event at Griffith Woods School centered on renewable energy, highlighting its significance and presenting a variety of career paths to an audience of more than 30 fourth and seventh-grade students during a guest lecture.

Minas Tênis Solidarity Program Volunteer, Minas Tênis Clube*Mar, 2019 - Present | Belo Horizonte, Brazil*

- Created a program called "Acompanhamento Escolar" (School Tutoring) in which volunteers taught 20+ children from public schools, who did not have access to online classes during the Covid pandemic.
- Engaged in projects such as dog adoption campaigns, food and clothes distribution for the underprivileged, orphanages and retirement homes visits.

Swimming Athlete, Minas Tênis Clube*Jan, 2011 - Dez, 2021 | Belo Horizonte, Brazil*

- 10 years on the highly competitive swim team at Minas Tênis Clube, earning over 200 medals and developing team competition and leadership skills.
- Committed approximately 30 hours per week to training, meetings, traveling, and competing while maintaining academic excellence.
- Demonstrated strong interpersonal and teamwork skills by developing qualities such as concentration, dedication, patience, strong work ethic, and perseverance to meet both personal and team goals.

SKILLS

Technology: Microsoft Office Package, Python, C++, Arduino, and basic html and css.

Design and Modeling: Canva, SolarEdge, PrusaSlicer, FreeCAD and Autodesk Fusion 360.

Languages: Portuguese (native), English (fluent), Spanish (intermediate), and French (beginner).

AWARDS & CERTIFICATIONS

Awards: First Place in the David Holub Interdisciplinary Cleantech Design Challenge, Swimming State Champion (Minas Tênis Clube, Belo Horizonte, 2011-2021), Brazilian Swimming Championship Finalist and Medalist (2017 and 2018), and Ironman 70.3 Harmony Finisher.

Certificates: Brazilian Olympiads of Astronomy (Escola Santo Tomás de Aquino, 2017), National Academic Olympiads of History (Escola Santo Tomás de Aquino, 2018), Brazilian Academic Olympiads of Mathematics (Escola Santo Tomás de Aquino, 2019), Academic Olympiads GeoBrasil (Escola Santo Tomás de Aquino, 2019), 3D Printing in the Maker Multiplex (University of Calgary, 2022), and the Clean Energy Entrepreneurship Workshop (IEEE PES, 2022).

Honors: Aussie of the Month (Ironsides State School, 2009) and Academic High School Prominence (Escola Santo Tomás de Aquino, 2017-2021).

Health and Safety Training courses: Occupational Health and Safety Training, Hazard Assessment Training, WHMIS 2015, Harassment and Violence Awareness Training, and Incident Reporting and Investigation. All of the courses were provided by the University of Calgary, Calgary, Alberta, Canada.