

Joao de Campos Carvalho

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SUMMARY OF SKILLS

Python, C#, C++, Fusion 360, Solid Works, PyTorch, EasyEDA, Microsoft Office, Client relations, Project Management

EDUCATION

University of Toronto, BASc, Mechanical Engineering + PEY Co-op

Sep. 2024 – May. 2028

Double Minor in Business and Robotics & Mechatronics.

3.48 GPA

UC Berkeley Eduexplora Summer Program

Jul. 2022

Python, Design thinking, Leadership and Applied STEM to neuroscience.

RELEVANT PROFESSIONAL EXPERIENCE

UTESCA, Toronto, Canada

Director of Outreach, September 2025 – current

- Researched and identified potential partners in prestigious consulting firms, with an 80% conversion rate to collaborations.
- Developed an automation pipeline to optimize partner outreach. Resulting in 20+ partners registered.

Cacau Show, São Paulo, Brazil

Intern, December - January 2022

- Participated in advertising and conversion data analysis, reaching 10,000+ customers.
- Developed a tool in Python to automate data organization, leading to a 98% efficiency increase.

PROJECT EXPERIENCE

Department of Materials Science Summer Research Project - *Co-Author*

May. – Jul. 2025

- Published a research paper with over 20 applications of 4D printing and Smart materials for Li-Ion batteries and super capacitors, conducting business strategy analysis, and a Life Cycle Assessment from 350+ sources.
- The paper was awarded the People's Choice Award at the U of T Undergraduate Engineering Research Day

UHN Sleep Monitoring Device - *CO-Project Manager*

Sep. – Dec. 2024

- Coordinated a 5-person team to design a low-cost sleep monitoring device, collaborating with UHN.
- Designed CAD model in Fusion 360 and electronic component integration.
- Originated 120+ design ideas, resulting in a design 30% cheaper than industry competitors.

"Cat Vision" AI security model - *Personal Project*

Jan. – Sep. 2023

- Designed a Python-based computer vision object detection model with PyTorch, specialized in detecting trespassing cats from CCTV footage and registering images and dates in a database.
- Resulted in 100+ Cat detections and enabled analysis of behavior patterns.

EXTRACURRICULARS

Brazilian Robotics Olympics - *Team Leader/ Chief Engineer*

2021 - 2023

- Designed and programmed the C# code for the simulation category, achieving a top 5 final position.
- Designed and manufactured the robot's custom PCB, circuitry, and victim rescue system computer vision module, responsible for detecting obstacles and path following for the practical category.

Awards: Bronze Medal - Brazilian Mathematics Olympiad (2019) | Silver Medal - Mathematique San Frontieres (2023)