LEONARDO ACHA BOIANO

Mechatronics Engineer
leonardoacha@hotmail.com • (+41)76 220 45 78
linkedin.com/in/leonardo-acha-boiano • github.com/leonardoAB1 • leonardoachaboiano.com
Basel, Switzerland • EU Nationality (B permit)



Summary: Mechatronics engineer with professional experience in robotics, embedded systems, and product design. Skilled in developing innovative solutions for complex engineering challenges, with a strong track record in problem-solving, teamwork, and contributing to advanced technology projects in international environments.

WORK EXPERIENCE

Robotics Engineer
cryoWrite AG
Aug 2025 - Present • Basel-Stadt, BS, Switzerland

- Developing the **ROS2** control software of an automated lab machine, from motion control and cameras to the **PyQt** operator interface
- Designing machine control architecture: real-time **PLC** and **EtherCAT** I/O integrated with **ROS2** process software
- Built the release pipeline on **GitHub Actions** and the offline updater
- On-site installation, servicing and troubleshooting at client labs

Work GitHub: github.com/leonardoAB-cw

Robotics Intern
Feb - Jul 2025 • Basel, Switzerland

- Designed operator interface components and prototyped **computer vision** for process checks and visual servoing
- Spearheaded the rollout of a company-wide documentation strategy in **Confluence** for internal knowledge sharing

Reliability Testing and Hardware Design Intern
Lumiphase AG
Aug 2024 - Jan 2025 • Stäfa, ZH, Switzerland

- Built electro-optical test setups for integrated photonic devices, from instrument selection to measurement routines
- Designed **PCBs** for sample fixation and electrical routing
- Performed lab operations: instrument setup, hardware installation, and calibration routine development

Hardware Engineer
Mobi Latam
Jun - Jul 2024 • Santa Cruz, SC, Bolivia

- Facilitated product development and logistics coordination with Chinese business partners

Hardware Engineer Intern
Jan - Jun 2024 • Santa Cruz, SC, Bolivia

- Assisted the tech team in integrating **MQTT** and **CAN-based IoT** batteries into the existing workflow through APIs
- Designed and prototyped solenoid actuators and control **PCB** tailored to secure electric motorcycles' batteries

Mechanical Design Intern
Reality Herramientas Creativas
Mar - May 2023 • Santa Cruz, Bolivia

- Developed rapid prototypes to validate and iterate on innovative engineering designs
- Created detailed component designs using **SolidWorks** and CAD software for manufacturing

EDUCATION

B.Eng. Mechatronics Engineering **2020 - 2024**
San Pablo Bolivian Catholic University **GPA 3.7/4**
Santa Cruz, Bolivia
Graduated with Honours

President of the Scientific Society, term 2023-2024

ACHIEVEMENTS

1st Place - ERH Physical AI Hackathon Oct 2026
Overall winner and co:prod track winner, Zurich

Champion - ICPC Regional Contest Aug 2024
Led a 3-person team to 1st place in Programming Contest

Diploma of Honour Apr 2024
Granted 2nd place in Mechatronic Eng term 2-2023

Certified SOLIDWORKS Associate (CSWA) Nov 2023
Validates proficiency in 3D CAD modelling

Diploma of Honour Sep 2023
Granted 2nd place in Mechatronic Eng term 1-2023

Excellence Scholarship Oct 2022
1st place in Mechatronic Engineering term 1-2022

Excellence Scholarship Apr 2022
1st place in Mechatronic Engineering term 2-2021

Excellence Scholarship Nov 2021
1st place in Mechatronic Engineering term 1-2021

Diploma of Honour May 2021
3rd place in Mechatronic Eng term 2-2020

Certificate of Achievement - Rotary D.4690 2019
Youth Exchange Ambassador to Canada 2018-2019

LANGUAGES

Spanish (Native)
English (Fluent)
German (A2)
Italian (A2)

SKILLS

Hard Skills: Python, MATLAB, C/C++, Cython, PyQt, Verilog & VHDL, Git/GitHub, GitHub Actions, Linux, LaTeX, STM32, ESP32, ROS2, OpenCV, FreeRTOS, PCB Design, KiCad, Proteus, Altium, IoT, BLE, CAN, EtherCAT, I2C, LTSpice, Soldering, 3D Printing, SolidWorks, Fusion 360, AutoCAD, DFMA, GD&T, CNC Lathe, Laser Cutting, FluidSIM, PLC, P&ID, Tia Portal, Ladder, FBD

Soft Skills: Time Management, Lifelong Learning, Adaptability, Discipline, Networking, Documentation, Drawing