

# Sebastián Liscia

Chemistry and Environmental Technology · Environment, data and energy with traceability

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Available immediately · La Plata and Greater Buenos Aires; open to relocation to Neuquén or other provinces · Driver's licence

## PROFILE

Final-year student of the BSc in Chemistry and Environmental Technology (National University of La Plata), expected to graduate in 2027. Since 2023 I have worked in field sampling and in a water and wastewater laboratory at CIIAAA. My own studies focus on energy in Argentina: groundwork for a national energy plan built on CAMMESA data, an innovation hub in Añelo, and frac sand in Vaca Muerta. I work natively with AI, using a traceability method in which every figure states its source, its status and how it was verified.

How I keep data audit-ready · applied in the current re-edition of my Argentine power system study

| 1 · Source                                                                                                                | 2 · Status                                                                                                                  | 3 · Re-run                                                                                                                                                | 4 · Cross-check                                                                                                                | 5 · Sign-off                                                                               |
|---------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Each downloaded file is logged with origin, date and SHA-256 hash. The loader rejects any file missing from the manifest. | Each figure is tagged documented, calculated, inferred, assumed or unknown. Calculations declare inputs, method and script. | A new data edition re-runs every query and reports what changed. It caught 1,598 hourly values CAMMESA revised between its June and August 2026 editions. | One AI model checks each claim against its source; a model from another provider audits the verdict. Disagreements come to me. | Nothing is final without my review. Decisions and changes are logged and committed to Git. |

## EXPERIENCE

### Laboratory Technician · Water and wastewater · Aug 2023 – present

CIIAAA, Interdisciplinary Centre for Applied Water and Environmental Research, National University of La Plata · La Plata

- Field sampling of surface water, groundwater and wastewater: planning, purging, in-situ measurements, sample preservation and chain-of-custody records.
- Physicochemical analysis of water and wastewater (organic matter, nutrients, alkalinity, solids): reagent standardisation, calibration curves and quality control of every test.
- Coagulation-flocculation and treatment trials at laboratory and pilot-plant scale.
- Documentation of results under quality, traceability and safety criteria. Trained six research interns in analytical technique, data recording and lab safety, and helped prepare and teach practical classes.

### Independent work · Environmental and energy data · 2025 – present

Own studies, published at [sebastianliscia.com](https://sebastianliscia.com) · La Plata

- I design the processes and review every deliverable; AI agents execute. A coding agent (Claude Code) writes the data-layer code and another drafts against a frozen data package.
- Cross-verification between AI models from different providers: one researches, another audits, and none reviews its own work; where they disagree, I read the original source. Method manual: "Traceable AI Workflows" (35 pages).

## PROJECTS

### Groundwork for a National Energy Plan (Bases para un plan energético nacional) · 2nd edition, October 2026 · 155 pages

Argentina's electricity system from 2005 to 2025 and the decisions ahead to 2030, with horizons to 2040 and 2060: demand, generation, hydropower, transmission, market, storage, distributed generation and territory, using public CAMMESA data. Each of the 947 claims states its status and source, and calculations are reproduced by scripts on a SQL database (DuckDB).

### Añelo Innovation Hub, Neuquén · Final edition, October 2026 · 87 pages

Pre-feasibility study for a technology and industrial hub in the Vaca Muerta basin: environmental and social-licence framing, regulatory and budget analysis of the funding instrument, four alternatives compared against nine criteria set in advance, and a register of 610 public sources.

### Final degree project, in progress · Frac sand demand and supply scenario evaluation for Vaca Muerta: logistical, economic, and emissions implications

Sand use per well, supply scenarios, transport, costs, emissions and the fate of the material that returns as waste.

## EDUCATION

BSc in Chemistry and Environmental Technology · National University of La Plata · expected graduation: 2027 · GPA 8.70/10

Courses: renewable energy, energy storage and energy efficiency (YPF).

## SKILLS

- Field and environment** — Surface water and groundwater, wastewater, soil and air sampling · chain of custody · QA/QC · monitoring analysis · environmental regulation and social licence · safety and PPE
- Data and AI** — Python (pandas) · SQL (DuckDB) · Excel · QGIS (basic) · Git (basic) · Typst/Pandoc · Power BI (learning) · AI agents and cross-model verification · LangGraph (learning)
- Languages** — Spanish (native) · English (bilingual working proficiency; Cambridge First Certificate, 2019) · Portuguese (basic)