

Curriculum Vitae

September 2026

Lucca Frachelle

Facultad de Ciencias Económicas y de Administración (FCEA)
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EDUCATION

2026 – present. MSc in Mathematical Engineering, Universidad de la República (Udelar), Uruguay.

Advisors: Diego Armentano (IESTA, Faculty of Economics and Administration) and Marcelo Fiori (Faculty of Engineering).

GPA: 10 / 10 (in progress).

2022 – 2025. BSc in Statistics, Universidad de la República (Udelar), Uruguay.

GPA: 9.28 / 10 (scale from 0 to 10).

FUNDING

2026 – present. National graduate scholarship, Agencia Nacional de Investigación e Innovación (ANII), Uruguay. Call POS_NAC_2025. Master's project: *Evaluation and Mitigation of Inter-Cluster Distance Distortion in UMAP and t-SNE*.

TEACHING

Aug 2026 – Dec 2026. Teaching assistant and co-organizer: *Workshop on Data Science with Python* (*Taller de Ciencia de Datos con Python*). Udelar.

Mar 2026 – Jul 2026. Teaching assistant: *Probability II* (via measure theory), *Data Science with R*. Udelar.

Jul 2025 – Dec 2025. Teaching assistant: *Descriptive Statistics, Stochastic Processes*. Udelar.

RESEARCH

Jul 2025 – Dec 2025. Research intern, PEDECIBA (Programa de Desarrollo de las Ciencias Básicas), Uruguay. PREXI programme; this internship defined the thesis problem on inter-cluster distance distortion in UMAP and t-SNE.

PROFESSIONAL EXPERIENCE

May 2024 – September 2025. Data Scientist, Santander Consumer, Uruguay.

ACADEMIC SERVICE

2025 – present. Co-organizer of the Colloquium of IESTA (Instituto de Estadística), Faculty of Economics and Administration, Udelar.

TALKS AND PRESENTATIONS

- **Double Descent.** Talk given on several occasions:

- Colloquium of IESTA (Instituto de Estadística), Udelar.
- Seminar on Optimization and Machine Learning.
- 4th Mathematics Students Conference (*4tas Jornadas de Estudiantes de Matemática*).
- **Poster.** XII Academic Conference, Montevideo, Uruguay, 2025.

TECHNICAL REPORTS

- Frachelle, L. (2025). Final report of the PREXI 2025 research internship (PEDECIBA). Technical report on inter-cluster distance distortion in UMAP and t -SNE.
- Frachelle, L. Talks on Double Descent (Colloquium of IESTA; Seminar on Optimization and Machine Learning; 4th Mathematics Students Conference).

OTHER RESEARCH ACTIVITIES

- Mathematics and Statistics Conference, Torcuato Di Tella University (UTDT), Buenos Aires, Argentina, 10–12 August 2026. Attended.
- XVII Latin American Congress of Probability and Mathematical Statistics (CLAPEM), Montevideo, Uruguay, 2026. Attended.
- Deep Learning School, Buenos Aires, Argentina, 2025. Attended.
- LatinR, Montevideo, Uruguay, 2023. Attended.

LANGUAGES

Spanish (native). English (fluent).