

Sebastian Lopez Silva

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Profile

Computer Engineering student pursuing an international double degree between Universidad Nacional de Colombia and Mines Paris PSL. With experience in software engineering and a strong foundation in mathematics, I am motivated by creating meaningful solutions and technological innovation. Passionate about AI and Machine Learning, I am available starting May 2026 for opportunities in France or abroad.

Education

École des Mines de Paris - PSL, M.Sc. in Engineering and Applied Mathematics	2025 - Expected 2027
Universidad Nacional de Colombia, B.Sc. in Computer Engineering (GPA: 4.74/5.0)	2021 - Expected 2027

Experience

- **Engin AI - Software Engineer** (Apr 2025 – Aug 2025) – Miami, United States (Remote)
 - Improved dataset preparation and creation workflows for video and audio ML models, achieving 70–80% faster processing times.
 - Implemented automated annotation conversion, validation, and debugging across YOLO and COCO, reducing manual QA from 15–18 steps to 3–4 steps.
 - Deployed production inference endpoints handling thousands of daily requests, including automatic scale-to-zero to minimize infrastructure costs.
 - Contributed to training and evaluation of audio classification models, increasing accuracy from 83% to 91%.
- **Dataconstructors AI - Software Engineer** (Nov 2024 – Apr 2025) – Bogotá, Colombia (Remote)
 - Developed backend pipelines for automated geospatial file processing in civil engineering projects, reducing processing time from ~1 week to ~3 hours.
 - Designed and implemented automation for report generation and live business statistics, improving delivery speed by ~80% across client workflows.
 - Built and maintained full-stack and backend systems integrating external APIs and MySQL/PostgreSQL databases using clean architecture principles.
- **Intelligent Systems Lab (LISI) – Research Assistant (ML)** (Aug 2023 – Aug 2025) – Bogotá, Colombia
 - Collaborated on applied machine learning research and internal projects with undergraduate and graduate researchers.
 - Led 10+ deep learning seminars (theory + hands-on labs) for 30–40 undergraduate/master's students, covering neural networks and core ML techniques.

Projects

- **Automated Pipeline for Gaussian Splatting Model Generation** – Mines Paris PSL - MOVIE: Ingénierie des Mondes Virtuels (Sep 2025 – Nov 2025)
 - Developed an immersive virtual exhibition of geological artifacts using Gaussian Splatting to improve realism and visual quality.
 - Built a ~90% automated pipeline for Gaussian Splatting dataset and model generation, reducing preparation time from ~5 hours to ~30 minutes (excluding training runtime).

Skills

Soft Skills: Teamwork • Problem-solving • Adaptability • Communication • Creativity • Critical thinking

Programming: Python (FastAPI, Pandas, NumPy, PyTorch, TensorFlow, etc.) • C/C++ • Julia • Java • Typescript (React) • SQL (PostgreSQL, MySQL, SQLite) • No SQL (Redis, MongoDB)

Technical Tools: Git • Docker • Amazon Web Service • Azure • Google Cloud Platform

Languages: Spanish (Native) • English (C1) • French (B2) • Portuguese (Conversational)

Misc

Tuition exemption for the 2025–2026 academic year, Mines Paris PSL	Present
Tuition exemption during all academic periods; Honor Roll recipient (2022), Universidad Nacional de Colombia	Present
Top 1% GPA among university students in Bogotá (~40 universities), Youth for Excellence	2024
ICPC UNAL contest, Competitive Programming Contest participant	2024