Carlos GRUSS
Signal Processing for AI & Data Science

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- 🏳 French/Uruguayan (Double)
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Languages

English - Bilingual (C2)

French - Fluent (B2)

Spanish - Native

Portuguese - Fluent (B1)

Computer Skills

Python (PyTorch, TensorFlow, Keras), C, JavaScript, Prolog.

Interests

Clubs and associations:
- Vice-president of the international student union at Télécom Paris (2024/25).
- Member of the English theatre troupe of Télécom Paris (2023).

Sports:
- Weightlifting: Currently competing in the French national league for S.C. Neuilly.
- Rugby: Played for the junior national team, winning the South American Championship and ranking 4th at World Rugby U20s Trophy in 2019.

Maths and physics:
- Finalist in the 2017 Uruguayan National Physics Olympics.

Hobbies:
Reading (particularly Science Fiction and Fantasy books) and playing video games.

As a dual-degree student at Télécom Paris, I am seeking a 6-month internship starting in February 2025 to further develop and apply my expertise in Artificial Intelligence and Machine Learning. I am based in Paris and open to opportunities throughout France.

Education

- **MEng in Signal and Image Processing for AI (Diplôme d'ingénieur)**
  From September 2023 to September 2025
  Télécom Paris - Institut Polytechnique de Paris France
  4.0 GPA - Signal Processing for AI (TSIA) and Image (IMA).

- **MSc in Computer Vision (Master M2)**
  From September 2024 to September 2025 Sorbonne Université Paris, France

- **BEng in Electrical Engineering**
  From February 2019 to July 2023 Universidad de la República Uruguay
  Signal Processing and Machine Learning specialization.

- **International Baccalaureate (IB) English Bilingual Diploma**
  From February 2017 to December 2018 The British Schools Uruguay
  41/45 - High honors, Top 10% worldwide.

- **Exchange semester**
  From September 2022 to January 2023 Universidad de Sevilla Spain

Projects

Real-Time Monitoring System for Autonomous Warehouse Robot
Implemented a monitoring script to track the performance of an autonomous mobile robot responsible for delivering parts across the production process in a warehouse. Using the robot's REST API, developed alert mechanisms to notify the engineering team of potential issues such as operational anomalies and unaccounted downtime.

AI-Powered Daily Weather Twitter Bot
Developed an automated Twitter bot in Python that tweets daily weather predictions each morning. The bot integrates OpenAI's GPT for generating natural language summaries, Open-Meteo's API for retrieving accurate weather forecasts, and Twitter's API for automated posting.

Dermoscopic image classification Kaggle
Developed a supervised classification pipeline for skin lesion images. Employed Pandas for data preprocessing and PyTorch to train a residual neural network to create lesion segmentations. Extracted manually crafted features from these segmentations and used ADASYN to address dataset imbalance. Implemented a simple feed-forward neural network for classification.

Work Experience

- **Robotics engineering assistant**
  From December 2020 to January 2022 GENBA Montevideo, Uruguay
  Responsible for organizing and developping automation projects for some of the biggest industries in Uruguay.

- **Undergraduate teaching assistant**
  From February 2022 to July 2022 Universidad de la República Montevideo, Uruguay.
  Delivered a robotics course using Arduino and micro:bit.

- **Engineer assistant (summer job)**
  From January 2019 to February 2019 HigieFarm Porto Alegre, Brazil
  Assisted the commercial manager, visiting potential clients and suppliers.