

Gerard Morales Riera

Email: gerardmorales9@gmail.com – [Homepage](#) – [LinkedIn](#) – [GitHub](#)

Education

- **Universitat Politècnica de Catalunya (UPC)** Barcelona, Spain
Bachelor in Engineering Physics; Upper 2nd class (2:1) 2020 – 2025
 - **Universitat Politècnica de Catalunya (UPC)** Terrassa, Spain
Bachelor in Aerospace Engineering; Upper 2nd class (2:1) 2020 – 2025
- Joint degrees as part of the CFIS-UPC program, after selection process.
- **La Salle Girona** Girona, Spain
High School; 1st class honours with university scholarship 2018 – 2020

Work Experience

- **Machine Learning Research Intern** (full-time) at **Fundació i2Cat** Barcelona, Spain
Developed time-series forecasting tools with ML for interurban road safety. May 2025 – Jul 2025
- **Student Researcher** (full-time) at **Texas A&M University** College Station, TX, US
Built and trained [AI-driven satellites](#) for Earth observation missions with RL and transformers at Prof. Daniel Selva's research group. Aug 2024 – May 2025
- **Software Engineering Intern** (full-time) at **Nostrum Biodiscovery** Barcelona, Spain
Added a multi-nucleotide loop closure algorithm to a protein folding solver. Jun 2023 – Sep 2023
- **Aerodynamics Engineer** ($\approx 20\text{h}/\text{week}$) at **UPC EcoRacing** (Formula Student) Terrassa, Spain
Designed, manufactured and tested the aerodynamics of a competition car. Oct 2021 – Mar 2023
Competed at FS Netherlands, Germany, East (Hungary) and Spain.

Volunteering

- **Study Resources Collection** with three classmates on our own Terrassa, Spain
Created and shared a Drive folder with studying material for Aerospace Eng. Jan 2024 – Mar 2024
- **Food Bank Volunteer Staff** (part-time) at **Banc dels Aliments Girona** Girona, Spain
Helped with storage and classification of food packages during the summer. Jul 2018 – Aug 2018

Skills

- **Programming:** Python, C++, Matlab, R, Dart, HTML, SQL.
- **Frameworks & Libraries:** PyTorch, Cuda, Pandas, Numpy, Scikit-Learn, Neo4j, Catia V5, Ansys Fluent, Ansys Systems Tool Kit, Django, Vue, Flutter.
- **Artificial Intelligence:** deep learning, transformer-based architectures, SL, SSL, RL (PPO, SAC).
- **Engineering:** CAD design, CFD simulations, aerodynamics validation.
- **Computer Tools:** Git, Anaconda, Linux, High Performance Cloud Computing (Slurm), LaTeX, Bash.
- **Languages:** English (C1 Advanced Certificate), Spanish (Native), Catalan (Native).

Awards

- Fundació Mir-Puig scholarship for studies abroad (degree thesis).
- High School 1st class honours, university tuition scholarship.