Pol Puigdemont Plana

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Machine Learning Scientist with research and industry experience. I am enthusiastic about building models and software that people can use. I enjoy fast-paced environments and learning with people.

EDUCATION AND RESEARCH EXPERIENCE

École Polytechnique Fédérale de Lausanne [incoming, Fall 2025]
PhD Student - LIONS Lab

École Polytechnique Fédérale de Lausanne [current]
Research Intern (funded) - LIONS Lab

Georgia Institute of Technology
B.Eng Data Science and Engineering - Academic Exchange, Spring 2024
Research Semester Project in Synergy Lab on Adaptable Hardware Accelerators for Graph Neural Networks.

École Polytechnique Fédérale de Lausanne
B.Eng Data Science and Engineering - Academic Exchange, Fall 2023
Research Semester Project at LIONS Lab.

Technical University of Catalonia - UPC BarcelonaTech
B.Eng Data Science and Engineering, Fall 2020 - Spring 2023
Four year plan, first three in Barcelona, awarded last year abroad at EPFL and GaTech. Research in Graph Neural Networks under the supervision of prof. Sergi Abadal.

Activities: Data Students Association President for 2yrs (organizing Spain's first and largest datathon, established as an official entity, from 0 to +10k profit), Mentorship and Tutorship Programs, Maths Faculty Basketball team.

ACCEPTED PUBLICATIONS

Puigdemont, P., *Skoulakis, S.*, Chrysos, G. G., Cevher, V. "Learning to Remove Cuts in Integer Linear Programming." *Proceedings of the International Conference on Machine Learning (ICML)*, 2024. Also available on *arXiv*.

Puigdemont, P., *Russo, E.*, Wassington, A., Das, A., Abadal, S., Palesi, M. "A Data-Driven Approach to Dataflow-Aware Online Scheduling for Graph Neural Network Inference." *Proceedings of the Asia and South Pacific Design Automation Conference (ASP-DAC)*, 2025. Also available on *arXiv*.

TALKS

Data-driven, Dataflow-Aware Scheduling of Graph Neural Networks into Heterogeneous Accelerators. WINC Workshop, Barcelona 2024

AWARDS

INIREC Scholarship for undergraduate research. Universitat Politècnica de Catalunya, UPC.

TAVIL full ride university scholarship for best engineering high school prospect in la Garrotxa. TAVIL S.L.U.

PAU distinction for outstanding marks in university admission tests. Catalonia Government.

Honors recognition for top 5% high school expedients. Catalonia Government.

5 time finalist, PANGEA math contest (+15.000 contestants, 2013-2017 editions). Highlighting: 2nd in Catalonia and 8th in Spain in 2015 and 5th in Catalonia and 13th in Spain in 2016.

INDUSTRY EXPERIENCE

Data Scientist   Jun 2023 - Dec 2023 (10 months)
Capchase (Part Time)
Development of tools around Large Language Models (LLMs). More specifically, building Retrieval Augmented Generation (RAG) pipelines to assist internal operations such as communication reviews, data insights and documentation search.

Data Scientist   Sep 2022 - May 2023 (9 months)
MANGO (Part Time)
Development of end-to-end Machine Learning and Pricing Optimization projects. From ETLs over the datalake, model design, model training, orchestration and deployment in cloud services.

Software Engineer   Sep 2022 - May 2023 (9 months)
BCN eMotorsport
Open development of a rule compliant Formula Student circuit generator and a Deep Learning supervised segmentation algorithm for track limits detection from LiDAR inputs in collaboration with TSC UPC.

Data Scientist (x2)   Jul 2021 - Sep 2022 (2x Summers - 5 months)
TAVIL (Full Time Internship)
Development from scratch of a new deep learning vision pipeline for generalizable error detection in plastic. Improved accuracy +5% needing 80% less training data.

SKILLS AND LANGUAGES:

python, c++, machine learning, mathematical optimization, research and development, statistics, data analysis, data processing, data visualization, algorithms.

English: Advanced C1, Catalan: Native, Spanish: Native, French: Basic.