



# Bertran Miquel Oliver

PhD Student in AI

- November 3rd, 1996
- Passage Josep Vicenç Foix, 20, 08750, Molins de Rei, Barcelona, Spain
- (+34) 680 80 58 53
- bertranmiqueloliver@gmail.com

## Links

- Personal webpage
- LinkedIn profile

## Languages

- Catalan ●●●●●
- English ●●●●●
- French ●●●●●
- German ●●●●●
- Spanish ●●●●●

## Technical skills

- Python ●●●●●
- Git ●●●●●
- L<sup>A</sup>T<sub>E</sub>X ●●●●●
- R ●●●●●
- SQL ●●●●●
- C++ ●●●●●
- C ●●●●●
- Mathematica ●●●●●

**ML frameworks:** PyTorch, PyTorch Geometric

**HPC/tools:** Linux, SLURM, WandB

## Work experience

- Feb. 2024 - now **PhD Student**  
*BSC - Barcelona Supercomputing Center*
- Sep. 2023 - Aug. 2025 **Part-time Lecturer**  
*UB - University of Barcelona*  
Teaching undergraduate Computer Science courses.
- June 2022 - June 2023 **Working student Data Analyst**  
*IFCO*  
Providing data analysis to worldwide customers.  
Participating on a simulation project with Python.
- June 2020 - June 2021 **BI Technician**  
*Teladoc Health International*  
Integrating different systems into a BI tool, managing with databases and creating data models.
- Nov. 2019 - June 2020 **Business Intelligence Consultant**  
*SDG*  
Supporting international pharmaceutical businesses to become data-driven companies, using Qlik and Tableau.

## Academic formation

- April 2021 - August 2023 **MSc. Degree in Mathematics**  
*Minor in Data Science & Biomathematics*  
TUM - Technical University of Munich  
Final degree thesis: *Mathematical Investigation into Genomic Order of Different Vertebrate Species* - Grade: 1.0  
**Relevant courses:** *Introduction to Deep Learning, Machine Learning, Mathematical Models in Biology, Genetics*
- Sep. 2014 - June 2019 **BSc. Degree in Mathematics**  
UB - University of Barcelona

## Publications

- 2026 **“Effective Resistance Rewiring: A Simple Topological Correction for Over-Squashing”**  
Miquel-Oliver et al., PMLR, ICLR 2026 GRaM Workshop. arXiv:2603.11944.
- 2025 **“Character-level Tokenizations as Powerful Inductive Biases for RNA Foundational Models”**  
Morales-Pastor et al., LMRL and AI4NA Workshops, ICLR 2025, Singapore. arXiv:2411.11808.
- 2025 **“TopoBench: A Framework for Benchmarking Topological Deep Learning”**  
Telyatnikov et al., DMLR, ICLR Vienna. arXiv:2406.06642.