Gal·la Daviu Vidal

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I aspire to find my place within research environments and social organizations that uphold progressive ethics and are driven by the most significant global challenges faced by today's society. I seek to apply the strong skills developed through my academic training to enrich my professional experience, while always aiming to move the world and its people further.

Education

Bachelor's Degree in Mathematics

Autonomous University of Barcelona 2021 – 2025

- Areas of specialization: Applied Mathematics and Functional Analysis.

Courses of the Master's degree in Data Science

Freie Universität Berlin as an exchange student Winter Semester 24/25

- Machine Learning for Data Science: *8.2*.
- Graph Neural Networks in the Life Sciences and Beyond: *With Honors*.

Research Master degree in Sociology and Demography

Universitat Pompeu Fabra October 2026 - July 2027 *(expected)*

Current Position

Centre d'Estudis Demogràfics | Universitat Autònoma de Barcelona November 2026 - *present*

- Research Assistant for the Health and Age group.
- Working on continuos inequality measures, depending on statistical models for income and population description.

Internships

Centre d'Estudis Demogràfics | Universitat Autònoma de Barcelona January – July 2026

- Research Assistant for ICREA Iñaki Permanyer.
- Worked with inequality measures and analytically modeled the influence of migration on this indeces over the past decades.

IAV GmbH | Martorell, Catalonia March – December 2025

- Worked as software developer for electronic control units in autonomous driving vehicles.
- Developed a fully automated project using a Python-based repository to access and update data according to validated logic for autonomous vehicle electronic control systems.

Technical Skills

Programming Languages

- **Python**: Experience with Machine Learning modules: PyTorch, TensorFlow, NumPy.
- **R** and **C**: For applied mathematics and statistics.
- **C++**: Introductory course within the Master's in Data Science at Freie Universität Berlin.

Tools and Data Management

- GitLab, Fork: Sharing project repository progress with other developers.
- Hierarchical databases: Experience handling XML data.
- Relational databases: Use of SQL in Python through sqlite3.
- Excel: Data organization, analysis, and visualization using formulas, tables, and charts.
- Familiar with repositories through exploration of GitHub open-source projects.

Academic Projects

Borwein Integrals

Bachelor's Thesis, Autonomous University of Barcelona September 2024 – July 2025

- Explaining an interesting breakdown in the pattern previously observed in these integrals. Gained expertise in functional analysis.

ETA Prediction with GNN for Google Maps

Seminar Course, Freie Universität Berlin Winter Semester 24/25

- Studied graph neural network estimators for travel time prediction implemented in the navigation app.

Languages

Native Languages: Catalan and Spanish.

Second Language: English, C1 level, and primary language during the internship at IAV GmbH.

Third Language: German, B1 level.