Nelly Barret

ASSISTANT PROFESSOR AT INSA LYON AND LIRIS

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♥ Research interests

I work in the broad field of data management, and more precisely lmy research interests focus on heterogeneous and/or multimodal data, data integration systems, and data exploration. Recently, I also added Federated Learning to my research interests. The projects that I worked on have always been part of multidisciplinary contexts, including urban planning, journalism, and health, and have been exemplified on large, complex, and often real-world data.

💼 Academic positions

2025 - now	**Assistant Professor | INSA Lyon & LIRIS (FR)**
2024 - 2025	**Postdoctoral researcher | Politecnico di Milano (IT)**
2021 - 2024	**PhD student | Institut Polytechnique de Paris & Inria Saclay (FR)**
2020 - 2020	**Master intern | LIRIS (FR)**
2018 - 2018	**Bachelor intern | LIRIS (FR)**

🎓 Education

2021 - 2024	**PhD degree | Institut Polytechnique de Paris**
2018 - 2020	**Master's degree | Université Claude Bernard Lyon 1**
2015 - 2018	**Bachelor's degree | Université Claude Bernard Lyon 1**

🌐 Research visits

Institut de Recherche en Informatique de Toulouse (Oct. 2025 (2 days))

🎗 Awards

PhD thesis award (Oct. 2024)

💡 Research projects

BETTER: real-world health-data distributed analytics research platform (Apr. 2024 – July 2025), CONNECTIONSTUDIO: user data exploration of heterogeneous data (March 2023 – March 2024), PATHWAYS: find interesting entity-to-entity paths in heterogeneous data (May 2022 – March 2024), ABSTRA: Entity-Relationship summaries from semi-structured data (Jan. 2021 – March 2024), PREDIHOOD: supervised prediction of the environment of neighborhoods (Feb. 2020 – July 2020), GEOALIGN: matching and merging geographic entities (Jan. 2019 – June 2019), VIZLIRIS: recommending and clustering French neighborhoods (May 2018 – July 2018),

⌨ Research software and tools

I-ETL (Apr. 2024 – July 2025), ConnectionStudio (March 2023 – March 2024), PathWays (May 2022 – March 2024), Abstra (Jan. 2021 – March 2024), Predihood (Feb. 2020 – July 2020), GeoAlign (Jan. 2019 – June 2019), VizLIRIS (May 2018 – July 2018)

👥 Working groups

Commission égalité & parité femme-homme (Nov. 2025 – now), Diversity, Equity and Inclusion (Apr. 2023 – now), FAIRification of genomic annotations (Dec. 2024 – now)

📚 Publications

My complete list of publications is available on my ORCID record.

👥 Professional service

Member of organization committees: Conceptual Modeling for Life Sciences [CMLS – A] (workshop co-chair)

Member of program committees: International Conference on Advances in Databases, Knowledge, and Data Applications [DBKDA – N/A], European Conference on Advances in Databases and Information Systems [ADBIS – C], BDA Gestion de Données – Principes, Technologies et Applications [BDA – N/A] (demonstrations only), Information Systems and AI for Life Sciences [iSAILS – A],

🏛 Reviewing activities

Journal reviewer: GigaScience [Q1], BMC Bioinformatics [Q1], Journal of Data and Information Quality [JDIQ – Q2], Computers, Materials and Continua [CMC – Q2], Journal of Open Source Software [JOSS – N/A], PLoS One [Q1], BMC Medical informatics and Decision Making [Q1], Scientific Reports [Q1],

Conference reviewer: International Conference on Advances in Databases, Knowledge, and Data Applications [DBKDA - N/A], International Conference on Data Engineering* [ICDE – A*], International Conference on Advanced Information Systems Engineering [CaiSE - A], European Conference on Advances in Databases and Information Systems [ADBIS - C], Conférence Francophone en Gestion de données : Principes, Technologies et Applications [BDA - N/A], International Conference on Advances in Databases, Knowledge, and Data Applications [DBKDA - N/A], Conference on Innovative Data systems Research* [CIDR – A], Extending DataBase Technology* [EDBT – A], International Conference on Web Engineering* [ICWE – B],

📋 Institutional responsibilities

2025 - now	**DRIM webpage maintainer | main maintainer**
2024 - 2025	**LinkedIn page maintainer | main maintainer**
2023 - 2024	**PhD representative | main representative**
2021 - 2024	**Team seminar organizer | main organizer**
2021 - 2021	**Internship application website contributor | active contributor**

Talks

My complete list of talks on my ZENODO record.

Teaching responsibilities

Recurring courses: ISN1: informatique et société numérique (fall, INSA Lyon, engineer 1st year, in French), SOL: systèmes et outils logiciels (fall, INSA Lyon, engineer 1st year, in French),

Involvement in teaching teams: ISN2: new project topic, ISN2: network module redesign, CGA: member of the Animation and Management Committee (Comité de Gestion et d'Animation),

Previous courses: CSE203: CS project (spring 2024, Ecole Polytechnique, bachelor 2nd year, in English), CSE204: Machine Learning (spring 2023, Ecole Polytechnique, bachelor 2nd year, in English), INF411: bases de programmation et d'algorithmique (fall 2022, Ecole Polytechnique, engineer 2nd year, in French), INF371: mécanismes de la programmation orientée objet (spring 2022, Ecole Polytechnique, engineer 1st year, in French),

Advising

Master students: Ahmed Bel Hadj Youssef on "Construction automatique de domaines dans les data meshs" (fall 2025, INSA Lyon, engineer 5th year), Antoine Gauquier on "Path exploration of ConnectionLens graphs" (summer 2022, IMT Nord-Europe, master 1st year),

Bachelor students: Shay Pripstein on "Target data acquisition in open repositories" (winter 2023, École Polytechnique, bachelor 3rd year), Tudor Enache on "From simple to property graphs" (winter 2023, École Polytechnique, bachelor 3rd year), Nikola Dobricic on "Graph queries for abstractions" (summer 2023, Ecole Polytechnique, bachelor 2nd year), Jia-Jean Law on "Optimization of entity-to-entity data paths" (winter 2022, Ecole Polytechnique, bachelor 3rd year),