

EDUCATION

- Universitat Politècnica de Catalunya (UPC)** Barcelona, Spain
Ph.D. in Statistics and Operations Research 2024–Current
- Thesis: "Statistical Validation of Synthetic Data"
 - Advisors: Daniel Fernández Martínez and Jordi Cortés Martínez
- Universitat Politècnica de Catalunya - Universitat de Barcelona** Barcelona, Spain
Master in Statistics and Operations Research (MESIO UPC - UB) 2022–2024
- Thesis: "Machine Learning-based Segmentation applied to Wind Turbines Images: Loss exploration"
 - Advisors: Antonio Agudo and Raül Pérez-Gonzalo
- Universitat de Barcelona - Universitat Politècnica de Catalunya (UB-UPC)** Barcelona, Spain
Bachelor's degree in Statistics 2018–2022
- Thesis: "Creació d'interfície interactiva amb shiny per la modelització de sèries temporals: estudi mediambiental de la qualitat de l'aire"
 - Advisor: Josep Anton Sánchez Espigares

PROFESSIONAL EXPERIENCE

- Universitat Politècnica de Catalunya (UPC)** Barcelona, Spain
Board member of School of Mathematics and Statistics (FME) 2021–2024
- Datancia** Barcelona, Spain
Data Analyst (Intern & Full-Time) 2022–2024
- Development of R Shiny Applications for Pharmaceutical Laboratories
 - Designed and implemented interactive R Shiny interfaces to adapt Clinical and Laboratory Standards Institute (CLSI) procedures for various pharmaceutical laboratory studies.
 - Applied statistical methodologies to ensure accurate implementation of CLSI standards, focusing on precision and compliance.
 - Automated report generation by integrating dynamic user inputs and procedural variations into LaTeX templates.
 - Interpreted and applied current regulatory standards and CLSI procedures to ensure compliance and accuracy.
 - Collaborated with cross-functional teams to discuss optimal data visualization strategies and user interface designs.
 - Led training sessions for new team members, enhancing onboarding and knowledge transfer processes.
- YouGov** Barcelona, Spain
Intern, Analyst Department 2021–2022
- Survey Design and Sampling Preparation
 - Designed and implemented statistically robust surveys to analyse public opinion on various topics.
 - Applied sampling techniques to ensure representative data collection, enhancing the validity of study results.
 - Collaborated with the panel team to identify and adjust quotas, ensuring demographic representativeness.
 - Market Research and Data Interpretation
 - Analyzed survey data to profile potential customers for brands such as Sony, Orange Bank, and Tendam.

- Interpreted statistical outputs to provide actionable insights for marketing strategies.
- Presented findings to stakeholders, contributing to data-driven decision-making processes.

Cofidis España

Intern, Risk Department

Cornellà de Llobregat, Spain

Summer 2021

- Fraud Detection and Risk Assessment Optimization
- Utilized SAS and Excel to automate processes, enhancing the efficiency of fraud detection and risk assessment.
- Applied statistical techniques to identify high-risk establishments and contracts, improving predictive accuracy.
- Monitored and documented customer acceptance systems, ensuring compliance with internal risk protocols.
- Collaborated with the fraud prevention team to refine detection models and reporting mechanisms.
- System Monitoring and Reporting
- Managed internal systems for customer acceptance, ensuring data integrity and process adherence.
- Developed and maintained reports using Power BI, providing actionable insights for risk management.
- Presented findings to senior management, contributing to strategic decision-making processes.

Universitat Politècnica de Catalunya (UPC)

Teaching Assistantships

Barcelona, Spain

2020–2021

- Supported "Introduction to Statistical Inference" and "Introduction to Computer Science and Calculus" for first-year students.

SKILLS

- **Programming Languages:** R, Python, SAS, SQL, MATLAB
- **Data Visualization:** R Shiny, Excel (Advanced)
- **Report Generation:** R Markdown, LaTeX, MATLAB, Microsoft Office Suite (Word, PowerPoint, Excel)
- **Tools:** Git, Jupyter Notebooks
- **Soft Skills:** Problem Solving, Team Collaboration, Effective Communication

LANGUAGES

- **Catalan:** C2 (Proficiency)
- **Spanish:** Native
- **Arabic:** Native
- **English:** C1 (Advanced)

RESEARCH STAYS & EXCHANGES

University of the Basque Country (UPV/EHU)

Department of Mathematics

Bilbao, Spain

25 Mar 2025–01 Apr 2025

- Short research stay with professor Josu Najera Zuloaga

Vicomtech

Biomedical Applications department

San Sebastián - Donostia, Spain

26 Mar 2025

- Invited seminar: "Evaluation of Metrics for Assessing Synthetic Tabular Data Quality."

PROFESSIONAL DEVELOPMENT

Attendance to research courses & seminars

- Workshop: Scientific communication oriented to oral discourse and knowledge transfer. Casa Bonay – NICA Room, Universitat Politècnica de Catalunya (UPC). Barcelona (Spain), November 19, 2025.
- Research Café: Data Security. Biblioteca Rector Gabriel Ferraté, Universitat Politècnica de Catalunya (UPC). Barcelona (Spain), November 14, 2025.

- Dipòsit i defensa de la tesi doctoral: Requisits, processos i tràmits. 4a edició. Universitat Politècnica de Catalunya (UPC). Barcelona (Spain), February 20, 2025.
- XVII edition of the MESIO UPC-UB Summer School - Applied Machine Learning to Solve Real-World Problems. Universitat Politècnica de Catalunya (UPC). Barcelona (Spain), July 1-5, 2024.
- 5th UPC Open Science Conference: infrastructures and research data initiatives to boost open science. Universitat Politècnica de Catalunya (UPC). Barcelona (Spain), June 21, 2024.
- 2nd ICT PhD Day. Universitat Politècnica de Catalunya (UPC). Barcelona (Spain), June 12, 2024.

Additional courses

- Data Manipulation with pandas. DataCamp. August, 2023.
- Intermediate Python. DataCamp. August, 2023.
- Introduction to Python. DataCamp. August, 2023.
- Creating Interactive Presentations with Shiny and R. LinkedIn. March, 2022.

PERSONAL PROJECTS

- **Data StoryTelling 2024 - Societat Catalana d'Estadística** 2024
Participated in the annual DataStorytelling contest, creating visual statistical narratives from open data to promote statistical literacy.
- **First IMC Challenge powered by Huawei** 2024
Participated in an international program initiated by Huawei and the International Mathematics Competition for University Students (IMC), tackling real-world math problems faced by the industry.
- **HackUPC 2024** 2024
Engaged in a 36-hour hackathon organized by BarcelonaTech, collaborating with over 500 participants to develop innovative technological solutions.
- **Datathon FME 2023 - NTT Data Challenge** 2023
Participated in a weekend-long competition focusing on real-world business cases in Machine Learning, AI, and Data Science.
- **Winner of the Best Idea at the ideaVilafranca Competition** 2022
Awarded the Best Idea prize (€1500) for a project aimed at optimizing the disease detection process to enhance the performance of the health system.

CONFERENCE PRESENTATIONS

Contributed Oral Sessions

- 19th International Joint Conference on Computational and Financial Econometrics (CFE) and Computational and Methodological Statistics (CMStatistics) 2025.
Nora Amama Ben Hassun, Jordi Cortés Martínez and Daniel Fernández Martínez. Presentation: "Evaluation of Metrics for Assessing Synthetic Tabular Data Quality". CO240: Synthetic data: Generation and validation methods Session. Birkbeck, University of London (UK), December 13–15, 2025.
- XLI National Congress of Statistics and Operations Research (SEIO 2025)
Nora Amama Ben Hassun, Jordi Cortés Martínez and Daniel Fernández Martínez. Presentation: "Evaluation of Metrics for Assessing Synthetic Tabular Data Quality". Data Analysis II session. Lleida (Spain), June 10-13, 2025.
- Workshop on the Occasion of the 10th Anniversary of the GRBIO (GRBIO10)
Nora Amama Ben Hassun, Jordi Cortés Martínez and Daniel Fernández Martínez. Presentation: "Statistical validation metrics for synthetic data". GRBIO Ph.D. Students' talks session. Barcelona (Spain), January 30-31, 2025.

Contributed Poster Sessions

- "From real to synthetic data ensuring quality" at the 6th Scientific Meeting of the Biostatnet National Network 2025, (BIOSTATNET: Strengthening National and International Biostatistics Excellence Research), Valencia (Spain), January 15-17, 2025.

Invited Seminars & Research Meetings

- Infoday of the Siemens Energy AI Chair.
Universitat Politècnica de Catalunya (UPC). Event focused on artificial intelligence applied to the energy transition, including project presentations, round table "Smart Decarbonisation: The Role of AI in a Sustainable Future", and doctoral research sessions. Barcelona (Spain), November 19, 2025.
- Vicomtech Seminar.
Nora Amama Ben Hassun, Jordi Cortés Martínez and Daniel Fernández Martínez. Presentation: "Evaluation of Metrics for Assessing Synthetic Tabular Data Quality". Donostia-San Sebastián (Spain), March 26, 2025.
- University of the Basque Country (UPV/EHU) in the Department of Mathematics Seminar.
Nora Amama Ben Hassun, Jordi Cortés Martínez and Daniel Fernández Martínez. Presentation: "Evaluation of Metrics for Assessing Synthetic Tabular Data Quality". Bilbao (Spain), March 25, 2025.
- GRBIO Seminar
Nora Amama Ben Hassun, Jordi Cortés Martínez and Daniel Fernández Martínez. Presentation: "Development and Evaluation of Metrics for Assessing Synthetic Tabular Data Quality". Barcelona (Spain), December 17, 2024.
- IDEAI-UPC and Siemens Energy (SE) PhD Seminar
Nora Amama Ben Hassun, Jordi Cortés Martínez and Daniel Fernández Martínez. Presentation: "Ph.D. in Statistical Validation of Synthetic Data". Barcelona (Spain), May 16, 2024.

FELLOWSHIP, SCHOLARSHIPS & MOBILITY GRANTS

Travel scholarships

- Young researchers mobility program BIOSTATNET (2024). Short research stay with professor Josu Najera Zuloaga at the Department of Mathematics of the University of the Basque Country (UPV/EHU). 25 March 2025 - 1 April 2025
- HiTEc Winter Course Grant (2025). Awarded funding to attend the HiTEc Winter Course at Birkbeck, University of London, UK. Grant includes daily allowance and travel expenses following COST regulations. Course dates: 10-12 December 2025.

Fellowship

- Siemens Energy AI Chair – Energy Sustainability for a Decarbonized Society 5.0. Description: Predoctoral fellowship from Secretary of State for Digitalisation and Artificial Intelligence under the ENIA Chairs 2022 programme (TSI-100930-2023-5). Additionally supported by the European Union – Next Generation EU.

PARTICIPATION IN RESEARCH EVENTS

- Organising Committee and Scientific Program Committee. VIII Jornadas Científicas de Estudiantes de la SEB. Bilbao (Spain), 28-30 January, 2026
- Organising Session CO240: Synthetic data: Generation and validation methods, CMStatistics 2025. Organisers: Nora Amama Ben Hassun, Jordi Cortés Martínez, Daniel Fernández Martínez. Bilbao (Spain), 13-15 December, 2025.
- Participated in the round-table discussion. II Jornada "Estadística i Educació" (SoCE). Barcelona (Spain), 16 July, 2025
- Volunteer as a member of the organizing committee. 12th BSC International Severo Ochoa Doctoral Symposium. Barcelona (Spain), 6-8 May, 2025

PARTICIPATION IN RESEARCH PROJECTS

National projects

- Statistics for Health Sciences: Advances in Survival Analysis, Clinical Trials, and Statistical Modelling (SAFARI).
Proyectos de I+D+i Convocatoria 20, Ministerio de Ciencia e Innovación.
Ref: PID2019-104830RB-I00.
PI: Dr. Klaus Langohr - Dra. Guadalupe Gómez Melis.
01/09/2024 - 31/08/2028. €325,200
- Grup de Recerca en Bioestadística i Bioinformàtica (GRBIO)
SGR, Agència de Gestió d'Ajuts Universitaris i de Recerca (AGAUR) - Convocatoria 2022, January 2023
Ref: 2023 SGR 01421.
PI: Dra. Guadalupe Gómez Melis
€40,000
- Stat Wars: La rebelión de los datos.
Ayudas para el Fomento de la Cultura Científica, Tecnológica y de la Innovación., Fundación Española de la Ciencia y la Tecnología (FECYT) - Convocatoria 2021.
Ref: FCT21-16586
€12,000

PROFESSIONAL SOCIETY INVOLVEMENT

- Member of the Royal Statistical Society (RSS) 2025
<https://rss.org.uk/>
- Member of the BIOSTATNET Network 2025
<https://biostatnet.com/en/>
- Member of Sociedad de Estadística e Investigación Operativa (SEIO) 2025
<https://www.seio.es/home/>
- Member of Societat Catalana d'Estadística (SoCE) 2025
<https://soce.iec.cat/>
- Member of the Association for the Advancement of Artificial Intelligence (AAAI) 2025
<https://aaai.org/>