DELFINA RAMOS VIDAL

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Predoctoral researcher at Universidade da Coruña, focusing on the evolution and maintainability of variability-intensive legacy systems. My work bridges software product lines and data-intensive systems, addressing the co-evolution of code, data schemas, and data.

EDUCATION

UNIVERSIDADE DA CORUÑA
09/2021 – 10/2025
A Coruña, Spain

PHD IN COMPUTING
- Thesis "Automated Evolution of Data Schemas in Variability-Intensive Information Systems"

UNIVERSIDAD POLITÉCNICA DE MADRID
09/2020 – 07/2021
Madrid, Spain

MSC. IN DATA SCIENCE.
- Master's Final Project Award funded by the Universidad Politécnica de Madrid.
- Final Project "SPARQL evaluation over compact data structures"

UNIVERSIDADE DA CORUÑA
09/2015 – 09/2020
A Coruña, Spain

DEGREE IN COMPUTER SCIENCE.
- Coursed bilingual studies in Spanish-English. Specialized in Information Systems.
- Final Project "Tool for the semi-automatic generation of software for Digital Libraries"

RESEARCH EXPERIENCE

Predoctoral FPI Fellowship | UNIVERSIDADE DA CORUÑA
08/2022 – present

Predoctoral fellowship for Research Personnel Training (FPI) in the national project "Enhanced Exploitation of Trajectories with Compact Data Structures and GIS." (Ref: PID2020-114635RB-I00)
- Research, design, implement, and validate mobility management and data engineering tools.
- Preparation of scientific papers and presentation at national and international conferences.
- Contribute to the development of international, national, European, and internal projects.

Research Assistant | UNIVERSIDADE DA CORUÑA
11/2020 – 08/2022

Research for the Database Laboratory at the University of A Coruña. Development of solutions in R&D projects.
- Analysis and implementation of a solution to integrate Compact Data Structures for RDF with SPARQL.
- Preparation of scientific papers and presentation at national and international conferences.

RESEARCH EXPERIENCE

Predoctoral Fellow | UNIVERSIDADE DA CORUÑA
08/2022 – present
- Teaching Assistant, BSc in Artificial Intelligence.
- Teaching Assistant, BSc in Computer Science.
- Teaching Assistant, BSc in Economics.

Substitute Teacher | UNIVERSIDADE DA CORUÑA
05/2022 – 08/2022
- Teaching Assistant, BSc in Computer Science.

SCIENTIFIC PUBLICATIONS

Ramos-Vidal, D., Assunção, W. K., Cortiñas, A., Luaces, M. R., Pedreira, O., & Places, Á. S. (2025). SPL-DB-Sync: Seamless database transformation during feature-driven changes. *Journal of Systems and Software*, 222, 112285.

Ramos-Vidal, D., Cortiñas, A., Luaces, M.R., Pedreira, Ó., Places, Á.S., & Assunção, W.K. (2025). Seamless Data Migration between Database Schemas with DAMI-Framework: An Empirical Study on Developer Experience. In *Proceedings of the 29th Inernational. Conference on Evaluation and Assessment in Software Engineering.*

Ramos-Vidal, D. (2023). Reengineering legacy document information systems: Challenges and solutions. In *Proceedings of the 27th International Conference on Evaluation and Assessment in Software Engineering* (pp. 286-291).

Ramos-Vidal, D., & de Bernardo, G. (2021). Tool for SPARQL querying over compact RDF representations. *Engineering Proceedings*, 7(1), 33.

Ramos-Vidal, D., Cortiñas, A., Luaces, M. R., Pedreira, O., & Saavedra-Places, A. (2021). Development of digital libraries with software product line engineering. *Journal of Web Engineering*, 20(7), 2017-2058.

Ramos-Vidal, D., Cortiñas, A., Luaces, M.R., Pedreira, O., & Places, Á.S. (2020). A Software Product Line for Digital Libraries. In *Proceedings of 16th International Conference on Web Information Systems and Technologies* (pp. 381-389).

Full list of publications available at: https://scholar.google.com/citations?user=M-UR7RIAAAAJ&hl=es&oi=ao

RECOGNITIONS

MASTER'S FINAL PROJECT AWARD (YEAR 2020-2021)   10 / 2021

Awarded by Universidad Politécnica de Madrid for the Final Project titled "SPARQL evaluation over compact data structure".

SPANISH SOCIETY OF ACADEMIC EXCELLENCE   07 / 2021

Identification Nº: 4339. Position 57 in the 2021 National Ranking in Computer Science.

SKILLS

Technical: Web Development [Vue 2 and 3 (5 yrs.), JavaScript (5 yrs.), NodeJS (4 yrs.), NPM (4 yrs.), Bootstrap (1 yr.)]; Databases [SQL (9 yrs.), NoSQL (2 yr.), PostgreSQL (6 yrs.)]; Git (6 yrs.); Infrastructure [Spring (5 yrs.), Hibernate (5 yrs.), JPA (5 yrs.)]; Docker (3 yrs.); ETL (6 yrs.); Statistical analysis [R (5 yrs.), Statgraphics (1 yr.)]; Data analysis [Python (3 yrs.), Pandas (3 yrs.)]; Machine Learning [Python (3 yrs.); Weka (1 yr.)].

Language:
- Spanish (Native)
- English (C2 Level – Cambridge University Certificate in Advanced English)
- Galician (C1 Level – CELGA 4 Certificate)

Certifications:
- **SAP Certified Associate:** SAP S/4HANA Cloud Private Edition, Financial Accounting   **02/2025**
- **NVIDIA:** Fundamentals of Deep Learning   **11/2022**

R&D PROJECTS

Digitization of "Literary Edition in Galicia, 1975-2000"   01/2023 – 01/2024

- Project management for the development of the website that presents the results of the project "A edición literaria na Galiza, 1975-2000" (PID2020-119605RB-I0).
- Team management, organization, distribution of tasks and negotiation of requirements with the client.
- Integration of the DAMI-Framework for data migration, which managed to reduce manual effort in the data migration tasks by 30%.
- Technologies: NodeJS / Vue / PostgreSQL/ Docker / Nginx / SQL / NPM / REST / Tomcat / Git

Project "Reengineering of the Galician Virtual Library"   06/2022 – 03/2023

- Project management, team management, organization and distribution of tasks.
- Negotiation of requirements with the client.
- Integration of the Software Product Line for Digital Libraries, which managed to save 40% in time and cost.
- Technologies: NodeJS / Vue / PostgreSQL/ Bootstrap / Docker / Nginx / SQL / NPM / REST / Axios / Git

Project "Intercultural Digitization": Content Cloud   04/2021 – 02/2022

- Development of a comprehensive platform for language teaching, focused on the content cloud node.
- Analyze and guide the integration of an H5P server that would allow the use of interactive resources.
- Technologies: NodeJS / Vue / Vuetify / Docker / Nginx / SQL / NPM / Axios / TypeScript / H5P / Git

Full list of projects, subventions and contracts: https://lbd.udc.es/ShowResearcherInformation.do?lang=en_US&id=386

CONFERENCE ORGANIZATION

Publicity Co-Chair for VARIABILITY 2026

Responsible for promoting the International Conference on Software and Systems Reuse, Product Lines, and Configuration through academic channels, mailing lists, and social media.

Publicity Co-Chair for SPLC 2025

Responsible for promoting the 29th ACM International Systems and Software Product Line Conference through academic channels, mailing lists, and social media.

VOLUNTEER ACTIVITIES

Hello Sisters Association   01/2023 – 01/2024

Participation in an association for the visibility of women in Computer Engineering.