

# Lizette Leon-Rodriguez PhD

## Senior Geoscientist - Stratigraphy Specialist

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*15+ years of energy industry experience. Currently, seeking a position as a strategic advisor and lead technical contributor to leverage my leadership and technical expertise. Lead petroleum geologist with expertise in project management, prospect evaluation, derisking, and ranking in underexplored basins. Experienced carbonate and clastic reservoirs stratigrapher. Specialist in planktic and benthic foraminifera biostratigraphy. Skilled in thin section work, wellbore log analysis, and integrative stratigraphy for age control, biofacies, and correlation (from basin to field scales). Projects in opportunity generation, exploration, development, and stratigraphic forward modeling of carbonate platforms and mixed clastic-carbonate systems.*

- ❑ **Delivering Data-Driven Results:** Natural problem solver who uses analytical methods to characterize and formulate scenario-based solutions for a Fortune 500 energy company
- ❑ **Defining Key Business Solutions:** Articulates how data should be used in decision-making: Senior stratigrapher and biostratigrapher with an emphasis on data integration and project management. Experience in opportunity generation in new and established exploratory areas for the oil and gas industry.
- ❑ **Leadership:** Team lead for geological characterization of carbonate reservoirs in the Santos Basin. Corporate expert on biostratigraphy of planktic and benthic foraminifera. Mentored newly hired geoscientists. Currently serving as president of a non-profit organization (USD 4 Million public-supported fund)
- ❑ **Cycle and Climate Change:** Published and highly cited scientist ([Nature](#), [Palaeogeography](#), [Palaeoclimatology](#), [Palaeoecology](#)). Research on carbon cycle, climate change, and consequences on ocean acidification. Worldwide expert on planktonic microfossils applied to paleoclimatological and paleoenvironmental reconstructions
- ❑ **Communication Strategies Lead:** Designed, created, customized, and optimized 10+ intranet websites for fast uptake of knowledge for scientists and non-scientists. Social media advisor for a non-profit organization.

## KEY SKILLS

• Planktic and Benthic Foraminiferal Biostratigraphy and Biofacies • Carbonate and Clastic Stratigraphy • Geological Modeling and Mapping • Climate Change and Carbon Cycle Science • Data Analysis & Data Science • Energy Industry Consulting • Project Management • Software Testing & Launch • Data-Driven Reservoir Characterization • Geological Scenario Analysis • Digital Transformation Strategy • Website Design HTML Programming • Stable isotope geochemistry and microscopy

## EXPERIENCE

### Ellington Geological Services, Houston, TX

Dec 2022 – To Present **Senior Stratigrapher and Biostratigraphic Consultant**

- Independent energy industry consultant as expert on stratigraphy and biostratigraphy. Responsible for geological characterization of sealing and reservoir facies, creating age model, and refining a stratigraphic framework for correlative purposes with nearby wells/fields using wellbore electric logs (GR, Vsh, etc.)
- Creating age-model plots based on planktonic foraminifera and paleoenvironmental and biostratigraphic foraminiferal analysis from discovery wells located in the Stabroek Block (ExxonMobil, Guyana) and production wells in the Gulf of Mexico (BP)
- Presented research study on the [Application of Biostratigraphic studies in the energy and subsurface-storage industries. An example from the Ainsa Basin, Spain.](#) (Emphasis on reservoir sealing facies)

### Cushman Foundation for Foraminiferal Research Inc, Washington, DC

2012 – Present

**President 2023 and Board Director**

Currently serving as past-president and board director for the most prestigious organization on foraminiferal research (managing endowment of over \$4M USD. Duties include directorship of the annual foundation's symposium, main convenor, and overseeing third parties contracts for managing publications and memberships services. Also, research proposal study and selection for student grants and invited speakers. Social media platform advisory and publications. Secured funds for worldwide open-access databases and publications: Mikrotax and Oligocene Atlas of Planktonic Foraminifera

## **ExxonMobil Corp., Spring, Texas, USA**

**2021 – 2022**

**Senior Biostratigrapher**

**Upstream Integrated Solutions**

Collaborated with cross-functional teams to define reservoir and seal presence and quality. Integrated micropaleontological data from core and cuttings with electric logs, isotopic, and lithologic datasets. Created data-driven interpretations of environments of deposition. Influenced teams to optimize sampling and remain cost-effective

- One of the first contributors to discover and execute projects in the Guyana Basin, with a total of ~10B barrels of oil discovered to date. Supporting new exploration efforts for the Suriname and Brazil teams
- Ensured timely delivery of products and reports in line with business requirements from partners and government entities.
- Managed third-party service contracts and performed quality control of biostratigraphic data from vendors.
- Developed training courses and corporate guidelines for the analysis, integration, and interpretation of geological datasets

**2020 – 2021**

**Carbonate Reservoir Geoscientist**

**Upstream Integrated Solutions**

Integration of geological modeling techniques and well-bore datasets for geological characterization of carbonate reservoirs in the Santos Basin (Brazil). Defined areas of high and poor reservoir quality (basin-to-field scales) and provided scientific-based insights for proper appraisal and development of oil field

- Created a scenario-based analysis workflow using Geological Process Modeling (GPM) integrated with wellbore datasets to identify zones of enhanced reservoir performance and regions of poor reservoir quality
- Team lead: Mentored and coordinated a team of geoscientists to create and provide the geological framework of a ~5-7B barrels oil field in the Santos Basin

**2018 – 2020**

**Exploration Geoscientist**

**Upstream Business Development**

Delivered strategic exploration opportunities in highly and underexplored areas by integrating in-house developed tools for worldwide oil and gas exploration.

- Integrated in-house developed tools to identify areas for opportunity generation of isolated carbonate buildup reservoirs around the globe. Actively worked on projects from Asia Pacific (Philippines) and South America (Colombia)
- Performed subsurface mapping, 2D and 3D seismic interpretation, geological characterization, past venture analysis, and volumetric and probabilistic risk assessment
- Took part in data rooms and provided expert opinion related to participation in the Department of Energy - Philippines 2019 oil and gas block bids

**2011 – 2017**

**Geoscientist**

**Upstream Research and Exploration**

Geoscience Integration. Responsible for developing age, paleoenvironmental, and stratigraphy frameworks for conventional (Gulf of Mexico, Angola, West Qurna, Canada) and unconventional reservoirs (Eagle Ford, Mancos Shale, Vaca Muerta, La Luna formation). Carbonate biostratigraphy and thin section biofacies for West Qurna and other Middle East fields.

- Thin-section Carbonate biostratigraphy and biofacies interpretation for the Yamama Formation and underlying formations in the West Qurna Field, Iraq. Created a proprietary manual of thin-section photographs to quickly identify Early Cretaceous shallow-water carbonate microfossils (foraminifera, algae, mollusks, etc.)
- Delivered results of detailed micropaleontological analysis for the Shaikhan Field, Kurdistan. Bio-Chronostratigraphic framework and EOD interpretation from Mesozoic and Cenozoic rocks that ranged from shallow to deep water environments
- Environment of Deposition (EODs) interpretation and Biostratigraphy for the Middle East Formations: Fars, Ghars, Dammam, and Zubair. Delivered results of detailed micropaleontological analysis: bio/chronostratigraphic framework and EOD interpretation from Mesozoic and Cenozoic rocks that ranged from shallow to deep water environments
- Combined micropaleontological and well-bore datasets to create age models, interpret environments of deposition, and infer reservoir and seal facies subsurface extension
- Delivered detailed reports that included climatological, paleoenvironmental, and paleobathymetric interpretations, as well as biostratigraphic charts and well correlations

## EDUCATION

**Rice University, Houston, TX (USA)** — *Doctor of Philosophy (Ph.D)- Earth Science.*

**Focus on climate change, global warming, carbon cycle, ancient geological analogs, ocean acidification**

AUGUST 2006 - DECEMBER 2011 GPA 3.9/4.0

Leon-Rodriguez, L. & Dickens, G. R. Constraints on ocean acidification associated with rapid and massive carbon injections: the early Paleogene record at Ocean Drilling Program Site 1215, equatorial Pacific Ocean. *Palaeogeogr. Palaeoclimatol. Palaeoecol.* 298, 409–420 (2010). <https://doi.org/10.1016/j.palaeo.2010.10.029>

Pälike, H., Lyle, M., Nishi, H. et al. (includes Leon-Rodriguez, L) A Cenozoic record of the equatorial Pacific carbonate compensation depth. *Nature* 488, 609–614 (2012). <https://doi.org/10.1038/nature11360>

**Florida International University, Miami, Florida (USA)** — *M.S. in Geosciences*

**Focus on microfossils (benthic foraminifera) as proxies to understand tectonic and sea-level change**

JANUARY 2004 - APRIL 2007 GPA 3.9/4.0

Leon-Rodriguez, L, Benthic foraminiferal record of the Pleistocene uplift of the sedimentary deposits of the Burica Peninsula (Costa Rica-Panama) as a result of the Cocos Ridge subduction beneath the Central American Arc.

(2007). ProQuest ETD Collection for FIU. AAI1448222. <https://digitalcommons.fiu.edu/dissertations/AAI1448222>

**Universidad Nacional de Colombia, Bogotá, Colombia** — *B.S. with honors in Geology*

**Focus on microfossils (planktic foraminifera) for geological age control and paleoenvironmental analysis**

JANUARY 1995 - JUNE 2003 GPA 4.2/5.0

## RELEVANT RECENT PUBLICATIONS

Leon-Rodriguez Lizette, Jonk Rene, Knabe Keith, Kevin Bohacs Kevin and Davis J Steve - The application of biostratigraphic studies in the energy and subsurface-storage industries. An example from the Ainsa Basin, Spain. FORAMS 2023. Grzybowski Foundation Special Publication No. 27 · Jun 26, 2023

This research work was also presented at FORCE 2024 Biostratigraphy, conventional and beyond (Stavanger, March 6 -7, 2024)

<https://distav.unige.it/forams2022/sites/default/files/docs/GFSP27-Forams%202023-Abstracts-2.pdf>

Pedersen, E.; Leon Rodriguez, L.; Jones G.; Qualman, H. [Insights from Process-Based Models and Integration with Reservoir Characterization and Rock Typing Workflows for the Pre-Salt Lacustrine Carbonate Reservoirs European Association of Geoscientists & Engineers - Conference Proceedings, Second EAGE Conference on Pre-Salt Reservoir, Sep 2021, Volume 2021, p.1 – 5. \(2021\) https://doi.org/10.3997/2214-4609.202183029](https://doi.org/10.3997/2214-4609.202183029)

## SOFTWARE SKILLS

- Petrel •Geological Process Modeling (GPM) •Stratabugs •ArcGIS •Microsoft Office (Word, Excel, PowerPoint)
- Adobe Creative Suite (Adobe Illustrator, Photoshop, Dreamweaver)

## RIGHT TO WORK IN

United States of America, European Union, Colombia

## LANGUAGES

Native Spanish, fluent English, basic French, and Portuguese

## VOLUNTEERING AND PROFESSIONAL AFFILIATIONS

- Inclusion and Diversity Champion, Lead for Carbonate Women's Network at ExxonMobil
- Board Director and Past-President Cushman Foundation for Foraminiferal Research,
- Mentoring program within the Women Geologist Network (GERMEN in Spanish Geological Society),
- Member of the Geolatinas, American Women Geoscientists, Geological Society of America and American Geophysical Union.