

# Diana Ramírez Gamboa

Jr. Data Analyst | Biotech Optimization | Scientific Automation

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## Professional Summary

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Data analyst with 3+ years of experience turning scientific and operational data into process improvements. Skilled in Python, Excel, and venturing in SQL with a focus on automation and inventory systems. Driven by using data to improve efficiency, reduce costs, and support strategic decision-making across technical environments.

## Key Skills & Strengths

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**Languages & Tools:** Python (Pandas, NumPy, Matplotlib), SQL, Excel (PivotTables, Macros), Tableau, Power BI

**Data Skills:** Data cleaning, transformation, dashboard development, inventory automation, database management

**Collaboration & Communication:** Cross-functional teamwork, scientific reporting, clear technical documentation, effective verbal and written communication

**Problem Solving & Adaptability:** Analytical decision-making, creative troubleshooting, adapting dynamic environments, and aligning technical solutions with cross-team goals

**Project Execution:** Workflow optimization, system automation, procurement tracking, lab and inventory systems

## Professional Experience

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### R&D Data Analyst | Biotech & Automation Systems

Tecnológico de Monterrey – Monterrey, N.L., México | Mar 2023 – Apr 2025

- **Increased pectin yield by 25%** through optimization of extraction conditions using experimental data analysis.
- **Reduced inventory discrepancies by 40%** with a SharePoint, and Google Sites-based lab tracking system.

### R&D Data Analyst | CO<sub>2</sub> Capture & Microalgae Optimization

Tecnológico de Monterrey – Monterrey, N.L., México | Oct 2021 – Mar 2023

- **Improved CO<sub>2</sub> capture efficiency by 15%** through data-driven tuning of growth variables and performance metrics.
- **Automated weekly reporting processes** via Excel macros and Power Automate flows, reducing reporting time and manual errors by **50%**.

## Education

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### M.Sc. in Biochemical Engineering

Instituto Tecnológico de Durango | 2019 - 2021

**Thesis:** Molecular characterization and optimization of bacterial exopolysaccharides

## B.Sc. in Chemical Engineering

Instituto Tecnológico de Durango | 2013 – 2018

## Certification

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- Google Data Analytics Professional Certificate | Coursera | *In progress*
- Python for everybody Specialization - University of Michigan | Coursera | [Certificate](#)
- Excel Skills for Business Specialization - Macquarie University | Coursera | *In progress*

## Publications

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**Multitarget optimization of citrus pectin extraction using microwave-assisted techniques and citric acid** (*Biomass Conversion and Biorefinery*, 2025): DOI: [10.1007/s13399-025-06805-0](https://doi.org/10.1007/s13399-025-06805-0)

**Enhancing pectin extraction from orange peel through citric acid-assisted optimization** (*International Journal of Biological Macromolecules*, 2024): [10.1016/j.ijbiomac.2024.130230](https://doi.org/10.1016/j.ijbiomac.2024.130230)

**Comparative study on the valorization of *Sargassum* from the Mexican Caribbean coast and Gulf of California as an ingredient on healthy diets for shrimp farming** (*Aquaculture Reports*, 2023): [10.1016/j.aqrep.2023.101709](https://doi.org/10.1016/j.aqrep.2023.101709)