

# Diana Ramírez Gamboa

## Data Analyst | Process Optimization & Automation | Scientific Insight

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## Professional Summary

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Data analyst with proven skills in Python, Excel, and process automation, focused on optimizing workflows and uncovering actionable insights from complex datasets. Experienced in building dashboards, automating reports, and supporting decision-making across scientific and operational teams. Ready to contribute to data-driven teams committed to continuous improvement and measurable results.

## 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)