

# Laura Pacheco

MSc Student in Biochemistry and Bioinformatics • BSc in Biology

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## PROFESSIONAL SUMMARY

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M.Sc. student in Biochemistry and Bioinformatics. Interested in the field of pharmacoinformatics and drug design. Skilled in working in interdisciplinary research teams. Experienced in the use of computer tools and laboratory equipment for data processing and analysis in research projects, focused on obtaining accurate and quality results. Ability to lead work groups, make decisions and face challenging situations.

## EDUCATION

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### Master's degree in biochemistry and bioinformatics

March 2023 - Current

Universidad de Concepción • Concepción, Chile

### Diploma in Programming Fundamentals in Python

April 2022 - June 2022

Universidad Tecnológica de Pereira • Pereira, Colombia

### Bachelor of Science in Biology

July 2014 - November 2019

Universidad Militar Nueva Granada • Cajicá, Colombia

Meritorious degree work • Awarded for the research project entitled: Assimilation of components in the diet of *Carollia perspicillata* in the Macaregua cave, Santander, Colombia

## WORK EXPERIENCE

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### Project Coordination Assistant

October 2022 – December 2022

CREO consultants • Bogotá, Colombia

- Compilation, organization and analysis of information for the management and development of sustainability strategies.
- Drafting of sustainability reports for companies.
- Design of initiatives, projects and actions for companies.
- Generation of surveys focused on understanding the needs of contractors' clients.
- Synthesis of information extracted from meetings and interviews with organizations.

### Young investigator

October 2021 – October 2022

Universidad Militar Nueva Granada • Cajicá, Colombia

- Isolate, identify and purify a phytopathogenic fungus (*Fusarium oxysporum*) of a plant species of commercial interest.
- Evaluate the in vitro activity of chemical products with antifungal properties against *F. oxysporum* in medium supplemented at microscale; with the aim of finding new antifungal agents, which allow to counteract the negative effects caused by the fungus in cultivable plant species of economic interest.
- Extract, sow and germinate a plant species of commercial interest *Physalis peruviana* L. in seedbeds under greenhouse conditions.
- Design and implement an assay to standardize the progress of the disease of a phytopathogenic fungus (*F. oxysporum*) in *P. peruviana* L.
- Statistical analysis and multivariate statistics of the content of chemical compounds and antifungal activity using the R project and SIMCA software.

- Prepare the annual subject material of science and biology, for the students of elementary and middle school, according to an approved curriculum.
- Teach students about topics of science and biology using different resources to understand and integrate the learning of the concepts, like plan of lectures, worksheets, forums, audio-visual presentations, games, laboratory and field practices.
- Prepare, assign and correct homework and quizzes.
- Evaluate progress, determine individual needs of students and discuss results with parents and school officials. Participate in staff meetings, educational conferences and teacher training workshops.

## SKILLS

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### Hard skills

- Experimental design.
- Project formulation, execution and evaluation.
- Lab skills (HPLC-MS, UFLC-DAD-MS y GC-MS).
- Use of databases and software (Word, Excel, PowerPoint, SIMCA, MATLAB, R, InfoStat, Python, Mega, Marvin, MZmine, Knime).

### Soft skills

- Experienced in project-based tasks.
- Accurate and effective communication.
- Autonomy.
- Multitasking.

## PUBLICATIONS

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**Book of abstracts - III Colombian Congress of Mastozoology and V Colombian Congress of Zoology:** assimilation of dietary components of *Carollia perspicillata*. December, 2019. Bogotá, Colombia. ISSN: 2665-2994 (Online).

**Proceedings - National Congress of Biological Sciences, Version 54 National and 5 International:** assimilation of *Anthurium scandens* components in *Carollia perspicillata*. No.2. October, 2019, Montería, Colombia. ISSN 2665-265X (Online).

**Proceedings - XII Latin American Botanical Congress:** metabolic profiling of four plant species present in different environments in the Córdoba wetland. October, 2018, Quito, Ecuador. ISBN: e-ISBN 978-9978-395-57-8 (Online).

**Proceedings - National Meeting of Biology Students:** evaluation of the tolerance of *Chlorella vulgaris* to different concentrations of Glyphosate. First Edition, June 01, 2017, Villavicencio, Meta. ISSN: 2619-5372 (Online).

## CERTIFICATES AND COURSES

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### Certificates:

- Poster: 31st Colombian Congress of Chemical Engineering and First Inter-American Conference on Chemical and Process Engineering. Bogota, Colombia, November 24-27, 2021.
- Organizer and attendee: I Colombian Congress on Ecosystem Services. Cajicá, Colombia, October 07 to 11, 2019.
- Oral Speaker: LIV National & V International Congress of Biological Sciences. Monteria, Colombia, May 20-24, 2019.
- Oral Speaker: III Colombian Congress of Mastozoology and V Colombian Congress of Zoology. Bogota, Colombia, October 03-07, 2018.
- Oral Speaker: XII Latin American Congress of Botany. Quito, Ecuador, October 21-28, 2018.
- Oral Presenter: National Meeting of Biology Students. Villavicencio-Colombia, May 24-27, 2017.

### **Courses:**

- Theoretical-practical course: fundamentals in data analytics. Data Science for All, Correlation One. Ministry of Information Technologies and Communications. Held from November 13 to December 17, 2022.
- Theoretical-practical course: introduction to statistics with R. Colombian Society of Mammalogy. Held on November 07 and 08, 2020.
- Theoretical course: planning of quality management systems. National Learning Service (SENA). March and April 2020.
- Theoretical-practical course: bioacoustics of bats: tools for the analysis of their squeaks. Anabat Systems. Held on December 08 and 09, 2018.
- Theoretical-practical course: field techniques for mammal research. Module 1: ecology, conservation and research of bats. Applied Biodiversity Foundation. Held on 31 March, 01 and 02 April 2017.

### **VOLUNTEER WORK**

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#### **Student representative on the board of directors**

Colombian Society of Mammalogy • Bogotá, Colombia

December 2019 - January 2022