

# Oscar A. Quintero López

BACHELOR IN BIOLOGY - BIOINFORMATICIAN

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## Experience

### Francisco José de Caldas District University

Bogotá, D.C.

LABORATORY TECHNICIAN

May. 2024 - Present

- Assisted faculty, students, and the general public according to the needs of the biology laboratories and warehouse.
- Performed equipment preparation, lending, and receiving, ensuring proper functioning and usage of laboratory equipment and materials.
- Trained users in laboratory usage, both in-person and through digital tools.
- Conducted preventive and corrective maintenance on laboratory equipment.

### Francisco José de Caldas District University

Bogotá, D.C.

BIOLOGY DEGREE PROFESSIONAL PRACTICE

Feb. - Nov. 2020

- Developed academic activities as part of Professional Practices III and IV, focusing on the Biology Degree.
- Conducted Professional Practice at Francisco José de Caldas Technical Industrial Institute, contributing to the afternoon session educational process.

### Francisco José de Caldas District University

Bogotá, D.C.

WORKSHOP INSTRUCTOR

Jul. - Ago. 2018

- Provided technical support for workshops aimed at strengthening participants' computer skills.
- Enhanced participants' technical skills through specialized guidance and workshops on basic Linux principles.

## Education

### Francisco José de Caldas District University

Bogotá D.C., Colombia

BACHELOR'S IN BIOLOGY

Feb. 2016 - Dic. 2022

### National University of Colombia

Bogotá D.C., Colombia

MASTER'S STUDENT IN BIOINFORMATICS

Ago. 2023 - Presente

## Professional Development

### American Chemical Society (ACS)

Online

SCIENTIFIC COMMUNICATION AND WRITING COURSE BY ACS PUBLICATIONS LATAM: THREE-SESSION PROGRAM

Nov. - Dic. 2024

- 4 hours and 30 minutes virtual course on scientific communication and writing, organized by ACS Publications LATAM.

### Francisco José de Caldas District University - Research Office

Bogotá D.C., Colombia

CONSOLIDATION OF CTel PROJECTS BASED ON SIGP

Sep. 2024

- 20-hour virtual course on consolidation of Science, Technology, and Innovation (CTel) projects based on the Integrated Project Management System (SIGP).

### Francisco José de Caldas District University - Research Office

Bogotá D.C., Colombia

STRUCTURING CTel PROJECTS BASED ON LOGICAL FRAMEWORK

Ago. 2024

- 20-hour virtual course on structuring Science, Technology, and Innovation (CTel) projects using the logical framework approach.

### Francisco José de Caldas District University - Research Office

Bogotá D.C., Colombia

STRATEGIC ROUTE CONTEXTUALIZATION AND CONSTRUCTION FOR PROJECT FORMULATION IN SCIENCE, TECHNOLOGY AND INNOVATION (CTEL)

Ago. 2024

- 20-hour virtual course on strategic project formulation in Science, Technology, and Innovation.

### National University of Colombia, Bogotá Campus - EMBL-EBI

Bogotá D.C., Colombia

ENSEMBL BROWSER WORKSHOP

Jul. 2024

- Participation in the workshop on using the Ensembl browser for querying genomic data.

<b>Platzi</b>	Online
PROFESSIONAL COURSE ON GIT AND GITHUB	Ago. 2023
• 22-hour course on Git and GitHub theory and practice.	
<b>National University of Colombia</b>	Bogotá D.C., Colombia
ALGORITHMICS 0.0	May. - Jun. 2023
• 48-hour course on basic and advanced algorithmics.	
<b>Platzi</b>	Online
LINUX SERVER ADMINISTRATION: RESOURCE MANAGEMENT	Mar. 2023
• 18-hour course on Linux server administration and resource management.	
<b>Platzi</b>	Online
INTRODUCTION TO C COURSE	Mar. 2023
• 12-hour course on introduction to the C programming language.	
<b>Platzi</b>	Online
FUNCTIONS IN C COURSE	Mar. 2023
• 10-hour course on the use of functions in the C programming language.	
<b>Platzi</b>	Online
CONTROL FLOW IN C COURSE	Mar. 2023
• 11-hour course on control flow in C programming language.	
<b>IAEA (International Atomic Energy Agency) and National University of Colombia</b>	Bogotá D.C., Colombia
NATIONAL TRAINING COURSE ON MUTATION INDUCTION IN POLYPLOID CROPS	Jul. 2022
• 40-hour course on mutation induction in polyploid crops, organized by the IAEA and the National University of Colombia.	
<b>Platzi</b>	Online
BASIC PROGRAMMING COURSE	Nov. 2021
• 34-hour course on basic programming theory and practice.	
<b>Platzi</b>	Online
DEVELOPMENT ENVIRONMENT SETUP IN LINUX	Ago. 2021
• 12-hour course on development environment setup in Linux.	
<b>Platzi</b>	Online
INTRODUCTION TO TERMINAL AND COMMAND LINE COURSE	May. 2021
• 11-hour course on terminal and command line theory and practice.	
<b>Platzi</b>	Online
ASTROBIOLOGY COURSE	Ene. 2021
• 10-hour course on astrobiology theory and practice.	
<b>Francisco José de Caldas District University - RITA</b>	Bogotá D.C., Colombia
INTRODUCTORY COURSE ON R WITH RSTUDIO	Abr. 2020
• 2-hour introductory course on the use of R and RStudio.	
<b>University of Los Andes - Max Planck Tandem Group in Computational Biophysics</b>	Bogotá D.C., Colombia
MECHANICAL FORCES IN BIOLOGY: THEORY AND SIMULATIONS	Sep. - Oct. 2019
• Participation in the workshop on mechanical forces in biology, theory, and simulations.	
<b>Francisco José de Caldas District University - RITA</b>	Bogotá D.C., Colombia
INTRODUCTION TO NETWORK MONITORING	Mar. 2018
• 2-hour course on network monitoring.	
<b>Francisco José de Caldas District University</b>	Bogotá D.C., Colombia
WORKSHOP ON INTRODUCTION TO PYTHON FOR BIOINFORMATICS	Nov. 2016
• Participation as an assistant in the introductory workshop on Python for bioinformatics.	

## Skills

<b>Bioinformatics</b>	RNA-Seq and GBS analysis, bioinformatics pipelines development, omics data handling
<b>Programming</b>	Python, Bash, R, C, SQL
<b>Systems and Platforms</b>	Linux (Server Administration), Docker, Nextflow
<b>Collaboration and Version Control</b>	Git, GitHub
<b>Data Analysis and Development</b>	CMake, Statistical analysis with R and Python, Visualization with ggplot2 and Matplotlib
<b>Computational Biology Tools</b>	Cobra Toolbox, KEGG API, SBML, BlobToolKit

## Languages

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**Spanish** Native  
**English** Intermediate level

## Presentations

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### II International Symposium on Radioactive and Nuclear Applications

*Bogotá D.C., Colombia*

SPEAKER: FUNCTIONAL GENOMICS FOR THE IDENTIFICATION OF MUTANT POTATO AND RICE VARIETIES OBTAINED BY

*7 - 10 de Nov. de 2023*

COBALT-60 IRRADIATION

- Highlighting the use of functional genomics techniques for discovering mutant varieties of essential crops such as potatoes and rice through exposure to Cobalt-60 radiation.

## Extracurricular Activities

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### GiBBS (Bioinformatics and Systems Biology Research Group)

*Bogotá D.C., Colombia*

RESEARCHER IN TRAINING

*Nov. 2023 - Present*

- Developed a genome-scale model for potatoes, applying advanced bioinformatics and computational systems biology techniques.
- Used Linux-based tools for genomic data analysis, demonstrating proficiency in Linux systems and bioinformatics.
- Contributed to writing research proposals and scientific publications related to genomics and bioinformatics.

### Specialization in Public and Private Lighting

*Bogotá D.C., Colombia*

STUDENT ASSISTANT

*Jun. 2023 - Dic. 2023*

- Assisted in developing practical laboratories and provided logistical support for coordinating academic activities in the specialization.
- Worked closely with faculty in planning and executing educational activities and workshops on public and private lighting.
- Contributed to the administrative operation of the specialization, ensuring smooth communication between students, faculty, and the administrative department.

### BIOMOLC (Molecular Biology and Agrigenomics Research Group)

*Bogotá D.C., Colombia*

RESEARCHER IN TRAINING

*Ago. 2021 - Present*

- Developed pipelines for RNA-Seq data analysis using Linux-based software, demonstrating proficiency in Linux and bioinformatics.
- Assisted in conducting workshops on basic Linux and data analysis, contributing to knowledge dissemination within the research group.



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