# MARTINEZ ALDANA JUAN PABLO

**Biochemical Engineering B.Sc.**

@ juan.martinez43@udea.edu.co    ☎ +351 937254422    % Personal Website

## PERSONAL DETAILS

**Date of Birth :** 1997 / 04 / 13
**Citizenship:** COLOMBIAN

## INTERNATIONAL EDUCATION

Lisbon Student of computer science

**42 Programming school**

📅 2023 - Currently      📍 Lisbon, Portugal

**Fields of Study:**
- Algorithms and data structures
- Learning how to write clean, maintainable code and how to work collaboratively with other programmers.
- C programming.
- Working in Linux based systems.

## NATIONAL EDUCATION

B.Sc Biochemical Engineering

**UNIVERSIDAD DE ANTIOQUIA**

📅 2015 - 2021      📍 Medellin, Colombia

Fields of Study: Biotechnology, Molecular biology, and Genetics.

## INTERNATIONAL RESEARCH

Advisor iGEM competition FCB-UANL

**UNIVERSIDAD AUTONOMA DE NUEVO LEÓN**

📅 2021 - 2022      📍 Monterrey, México

Advisor of the team FCB UANL in the competition IGEM-Leagues.

- Reviewer of the math model developed, in the project, and the simulation and code implementation in python.
- Advisor of the physical structure of the biofilter, and the design of a virtual 3D prototype.
- Advisor of the enterpreurniship plan, and the cost simulation of the project.

Contestant iGEM competition-UANL

**UNIVERSIDAD AUTONOMA DE NUEVO LEÓN**

📅 2020 - 2021      📍 Monterrey, México

Contestant of the Synthetic Biology competition iGEM
**International Genetically Engineered Machine** .

- Modeling Fed Batch Bioreactor for the production of recombinant protein Ranaspumins 1-6 using *Escherichia coli*
- **Techno-economic evaluation** and conceptual design of a large-scale plant of an ecological foam for ABC and forest fires using the software **super pro designer**

## DISSERTATION WORK

BSc Thesis

**Bioinformatic analysis** of the *Streptomyces clavuligerus* transcriptome and establishment of an interaction network associated with clavulanic acid metabolism.

- Proposal of a gene interaction network, based on data of gene expression, that allows understanding possible regulatory patterns mainly associated with clavulanic acid metabolism.
- Performance of bioinformatic analysis of the *Streptomyces clavuligerus* gene expression data, emphasizing the differentially expressed genes associated with clavulanic acid biosynthesis.
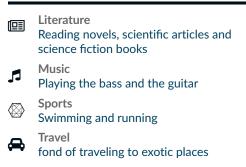
## TECHNICAL STRENGTH

| | |
|---|---|
| Linux Bash | ●●●○○ |
| C# | ●●●○○ |
| Python | ●●●○○ |
| JavaScript | ●●●○○ |
| HTML | ●●●○○ |
| CSS | ●●●○○ |
| React | ●●●○○ |
| Unity | ●●●○○ |
| Galaxy for Bio-informatics | ●●●●○ |
| MS Office | ●●●●○ |

## STRENGTHS

Good at decision making
Able to work under pressure
Good with conflict resolution
Good at time management   Target oriented
Able to travel   Flexibility and Adaptability

## HOBBIES

📰 **Literature**
Reading novels, scientific articles and science fiction books

🎵 **Music**
Playing the bass and the guitar

⬡ **Sports**
Swimming and running

🚗 **Travel**
fond of traveling to exotic places

- Design and development of a gene co-expression network using the platform Cytoscape.

# NATIONAL RESEARCH

**Research Assistant**

**BIOPROCESOS (BIOPROCESS RESEARCH AND DEVELOPMENT GROUP)**

📅 July 2019 - Jun 2020      📍 Medellin, Colombia

Support in the experimental development of the project and perform the analysis of obtained data using the bibliography available.

- **Development of a biofilter for the treatment of contaminated air produced by the poultry industry (2018).**

# SIDELINE ACTIVITIES

**Sports Instructor**

**UNIVERSIDAD DE ANTIOQUIA - SECCIONAL ORIENTE**

📅 July 2019 - November 2020

- Planning of sports tournaments in the University.
- Support in administrative activities.
- Giving swimming lessons to students.

**Rehabilitation Instructor**

**OLIMPIC-SWIMMING POOL, Rionegro - COL**

📅 february 2014 - March 2020

- Improving swimming skills services for people with any disability can be mental or physical, including down syndrome, blindness and deafness.
- Planning and monitoring the implementation of the rehabilitation plan and inclusion to the social life.
- Introduction to the competitions tournaments mainly focus in swimming and athleticism.

# CERTIFICATES

- Presented my research work at the "**XXIII National and XVII International Meeting of Student Research Groups (RedCOLSI foundation)** " (2020).
- Presented my research work at the "**XIII National Scientific Technical Day of Chemical Engineering**" at Universidad de Cartagena,
  Cartagena, Colombia (2018).
- Attended and successfully completed the online course "**Programming for Everybody (Getting Started with Python)**" from Michigan University
  Rionegro, Colombia (2019).
- Participated in "**First Encounter of Biochemical Engineering and Agroindustrial Engineering Student Research Groups**" at Universidad de Antioquia - Seccional Uraba
  Carepa, Colombia (2017).
- Participated in the "**IV. Colombian Congress for Computer Biology and Bioinformatics**"
  Santiago de Cali, Colombia (2017)

# LANGUAGES

**Spanish : Native Speaker**      ●●●●●

**English**      ●●●●○
**Speaking:** C1
**Writing:** C1
**Reading:** C1

**Portuguese**      ●●●○○
**Speaking :** C1
**Reading :** C1
**Writing :** B2

# REFERENCES

**PhD. Juan Carlos Quintero Díaz**
@ carlos.quintero@udea.edu.co
✉ Faculty of Chemical Engineering - Medellin, Colombia

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**PhD. León Felipe Toro Navarro**
@ lfelipe.toro@udea.edu.co
✉ Bioprocess Research Group - Medellin, Colombia