

# Carlos Roberto Jacinto Mejía

Date of birth: /1996 | Nationality: Salvadoran | Gender: Male | Phone number:

Email address: LinkedIn:

## ABOUT ME

I am a dedicated and enthusiastic PhD Candidate at the Program of National Interest in Catalysis in Italy, with a passion for exploring the intersection of chemistry and computational methods. With a solid foundation in Chemical Engineering, I have developed a keen interest in bridging the gap between theory and implementation, often leveraging my knowledge in Data Science and Machine Learning. I thrive in collaborative environments and enjoy tackling complex challenges. I am eager to contribute my skills to meaningful projects while continuously seeking opportunities for growth and learning

## WORK EXPERIENCE

16/12/2019 – 30/06/2022 Sonsonate, El Salvador

**PROCESS CONTROL ENGINEER** COMPAÑÍA AZUCARERA SALVADOREÑA

Data Analyst, quality assurance in the laboratory, process supervising, new projects developer

14/07/2019 – 13/12/2019 Sonsonate, El Salvador

**RESEARCH ASSISTANT** COMPAÑÍA AZUCARERA SALVADOREÑA

Development of laboratory manuals for HPLC use, water and carbon footprint calculation tool development

13/03/2019 – 05/07/2019 Antiguo Cuscatlán, El Salvador

**TEACHING AND ADMINISTRATIVE ASSISTANT** UNIVERSIDAD CENTROAMERICANA JOSÉ SIMEÓN CAÑAS

Teaching assistant of the course "Mass and Energy Balance" and administrative assistant for the Lean Manufacturing Cluster

14/06/2017 – 08/12/2018 Antiguo Cuscatlán, El Salvador

**RESEARCH ASSISTANT** UNIVERSIDAD CENTROAMERICANA JOSÉ SIMEÓN CAÑAS

Laboratory essays and data analyst at Proyecto Bioagro USAID-CASSA-UCA focused on producing citric acid from sugarcane molasses by *Aspergillus niger* fermentations

02/2017 – 03/2018 Antiguo Cuscatlán, El Salvador

**TEACHING ASSISTANT** UNIVERSIDAD CENTROAMERICANA JOSÉ SIMEÓN CAÑAS

Teaching assistant of the courses: "Calculus I", "Calculus II", and "Vector Algebra and Matrices".

## EDUCATION AND TRAINING

01/11/2024 – CURRENT Italy

**PHD CANDIDATE AT THE PROGRAM OF NATIONAL INTEREST IN CATALYSIS** Università degli Studi di Perugia

03/10/2022 – 25/09/2024 Perugia, Italy

**ERASMUS MUNDUS MASTER IN THEORETICAL CHEMISTRY AND COMPUTATIONAL MODELLING** Università degli Studi di Perugia

01/04/2024 – 30/06/2024 Mülheim, Germany

**MASTER VISITING STUDENT** Max-Planck-Institut für Kohlenforschung

**Thesis** Exploring Novel Machine Learning Solutions for the Calculation of Relative Electronic Energies

08/01/2015 – 20/09/2020 Antiguo Cuscatlán, El Salvador

**BACHELOR IN CHEMICAL ENGINEERING** Universidad Centroamericana José Simeón Cañas

**Thesis** Study and analysis of the wet phosphoric acid production system

## LANGUAGE SKILLS

Mother tongue(s): **SPANISH**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C2	C1	C1	C2
<b>ITALIAN</b>	B2	B2	B2	B2	B2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## SKILLS

Linux (Ubuntu, Linux Mint) | Linux: Manjaro, Debian, Pop\_OS!

### Programming

Python | R | Octave | MATLAB

### Microsoft Office

Word | Excel | PowerPoint

### Software

Minitab | Aspen HYSYS | DWSIM | ORCA | Dirac | MolPro | SIESTA | OpenMolcas

## PUBLICATIONS

2020

**Citric Acid Recovery from a Synthetic Fermentation Broth by Ion-Exchange Resins**

## HONOURS AND AWARDS

03/2022

**Erasmus Mundus Joint Master Degree Scholarship - European Master in Theoretical Chemistry and Computational Modelling**

09/2019

**National Delegate for El Salvador – Latin American Association of Students of Chemical Engineering and Related Careers**

10/2014

**Academic Excellence Scholarship for Undergraduate Students – Poma Foundation**

10/2014

**Excellence Award – Ministry of Education of El Salvador**

## ORAL PRESENTATIONS

31/01/2025

**Novel Machine Learning Strategies for the Calculation of Relative Electronic Energies**

17/12/2024

**Theoretical Study and Design of Sustainable and Highly Selective Catalytic Processes Using Innovative Computational Methodologies**

26/07/2024

**Computational Quantum Chemistry and its Applications in Chemical Engineering**

03/07/2023 – 08/07/2023

**Molecular Structures Optimization and Reaction Energy Calculations using ORCA and Avogadro**

11/07/2022 – 16/11/2022

**Statistical Methods Applied in the Process Industry**

08/2020

**Study and analysis of the phosphoric acid production system by the wet process**