

Carlos Roberto Jacinto Mejía

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

Email address:

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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	
ENGLISH	C1	C2	C1	C1	C2
ITALIAN	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