

Ricardo M. Cruz-Sánchez

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Education

University of Puerto Rico at Cayey

August 2019 – Present

Bachelor of Science in Biology

GPA: 3.88

Expected Graduation: May 2024

Undergraduate Research Experience

University of Puerto Rico at Cayey, Research assistant

January 2022 – Present

Mentor: Dr. Ricardo Chiesa, Ph.D.

- Project: Potential Anxiolytic Effects of Brown Algae Organic Extracts in *Drosophila Melanogaster* using Open Field Test.
- Participated in weekly laboratory trainings and meetings to learn the fundamentals of the research project.
- Collaborated with my colleagues in the cleaning and exchanging of flies between culturing tubes.

University of Puerto Rico at Cayey, RISE Program

August – December 2020

Mentor: Dr. Juan Santana, Ph.D.

- Project: DFT Calculations of the Conformations of Pd_n and Pt_n (n=1-7) on Au (111).
- Focused on studying the bimetallic system composed of Pd and Au that can be used as a selective heterogeneous catalyst.
- Calculated the energies of Palladium sub-nano clusters (n=1-7) deposited in a surface of Gold (111) using computational methods including DFT and VASP.

Poster Presentation

Annual Biomedical Research Conference for Minority Students (ABRCMS) November 2020

- Project: DFT Calculations of the Conformations of Pd_n and Pt_n (n=1-7) on Au (111).

Abstract Publication

Vázquez-Lizardi, G., Ruiz-Casanova, L., **Cruz-Sánchez, R.**, & Santana, J. (2021). Simulation of Metal-Supported Metal-Nanoislands: A Comparison of DFT Methods. *Surface Science*.

<https://doi.org/10.1016/j.susc.2021.121889>

Internships

Summer Health Profession Education Program, University of Louisville June – July 2021
6-week summer program for underrepresented minorities interested in healthcare careers.

- Attended weekly sessions and workshops that helped us gain knowledge on the different health professions, health disparities, and graduate school admissions.
- Implemented team-based learning to integrate and apply the basic and social sciences focusing on diabetes and cardiovascular diseases.

Awards and Distinctions

Honor Roll of the Dean of Academic Affairs August 2019 – Present

- Awarded to the students that maintain a GPA of 3.50 or more throughout the academic year.

Outstanding Student in Caguas May 2019

- Awarded to the students that maintain a GPA of 3.50 or more throughout their senior year of high school.

Experience and Extracurricular Activities

Volunteering Experience

Volunteer at the Ecological Center of my campus February 2022 – Present

- Assisted in the remodeling of the cactus and succulents' area by organizing and classifying the wide diversity of plants.
- Organized a Cactus and Succulent sale to raise funds for the maintenance of the animals and areas of the center.

Registration team member at vaccination center by VOCES organization Jan – February 2022

- Inspected the vaccination cards and ages of every single patient to see if they qualified to get the COVID-19 vaccine.
- Provided support to patients that were functionally diverse or illiterate by helping them fill out their vaccination documents.
- Provided general information to patients.

Member of Set Up team at Mercado de Alimentos in Santurce June 2021– February 2022

- Helped in the assembly of the necessary supplies for each vendor, such as tables, chairs, and tents.
- Assisted a vendor in the selling of her croissants, sourdough breads and pastries since my first day in the market.
- Supported the coordinators with logistics of the events, such as organizing the tents in a way that benefited the vendors and the food trucks.

Work Experience

Mentor at *Proyecto Título V* at UPRC

August 2021 – Present

- Collaborated with other mentors and professors to offer an online seminar about college adaptation and academic opportunities for freshmen students.
- Counseled students about curricular sequences, extracurricular activities, summer internships, graduate schools' prerequisites and more.

Gardener at Jardin el Patio's nursery

June – July 2020

- Worked with a staff of three members to eliminate the weeds and insects from plants.
- Learned propagation techniques to increase the population of certain plant species for future sales.

Student Organizations

Association of the Honor's Program

January – December 2021

- Attended workshops and activities for professional development throughout the semester.
- Elected by the members of the association as historian for one semester.

Circle of Chemistry

January – May 2021

- Attended informative sessions and activities throughout the semester.
- Designed with my colleagues an abstract poem that mentioned the use of green chemistry for the environment.

Extracurricular Activities

Virtual Shadowing Program

August 2020 – Present

- Participated in weekly 2-hour sessions focusing on healthcare professions and the admissions processes to graduate schools.
- Attended 50 sessions that is equivalent to 100 hours of virtual shadowing.

Soccer Athlete at UPRC

August – December 2019

- Communicated constantly with my teammates and the coaching staff to achieve our goals.
- Attended all the morning and afternoon practice sessions and official games.

Skills

Languages

- Spanish – Native
- English – Fluent

Programs

- Microsoft Office including Word, Excel, PowerPoint, and Teams.
- Linux
- VASP

Certificates

