

URAYOAN VERGES-RODRIGUEZ

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SUMMARY

Master of Physics with over three years of teaching experience and a detailed history of research experience involving theory and computation. I'm passionate, conscientious, flexible, and respectful of diversity in the workplace and in communities. I'm currently searching for work in professional fields where I can bring the sum of knowledge and experience of research and pedagogy in physics, mathematics, and computation that I've accumulated throughout my academic career to the benefit of individuals and communities.

EDUCATION

M.Sc. Physics

August 2020—May 2022

Georgia Institute of Technology; Atlanta, GA

B.Sc. Physics; Mathematics

August 2013—June 2019

University of Puerto Rico, Río Piedras Campus; San Juan, PR

- Recipient for the *Facundo Bueso Physics Medal* for outstanding work as an undergraduate Physics student.
- Graduated Magna Cum Laude (GPA 3.81/4.0)

RESEARCH EXPERIENCE

Graduate Research Assistant

January 2021 — July 2021

Georgia Institute of Technology; Atlanta, GA

Advisor: Dr. David Z. Rocklin

- Researching analytical solutions of unique problems involving physically compatible deformations of two-dimensional unimode lattice systems.

Undegraduate Research Assistant

January 2018 — December 2018

University Of Puerto Rico, Río Piedras Campus; San Juan, PR

Advisor: Dr. José Nieves

- Independent studies and research involving variations of two-level systems: Hermitian systems, Non-Hermitian systems, time-dependent systems and the Landau-Zener system which was solved via adiabatic approximation using Weber functions.

NSF REU Summer Program

May 2018 — July 2018

Purdue University; West Lafayette, IN

Advisor: Dr. Sabre Kai

- Applications of quantum annealing optimization processes to an Ising Model representation of a lattice of qubits to obtain optimal solutions for the prime factorization problem for various systems.

NSF REU Summer Program

May 2017 — July 2017

Georgia Institute of Technology; Atlanta, GA

Advisor: Dr. Kenneth Brown

- Utilized the Python Quantum Toolbox, QuTip, to model error correction processes using mathematically formulated narrowband rotation sequences on a two-level qubit Bloch Sphere simulation.

TEACHING EXPERIENCE

Graduate Teaching Assistant

August 2020 — May 2022

Georgia Institute of Technology; Atlanta, GA

- Taught multiple course sections focused on helping students improve their physics problem-solving skills.
- Students had to solve assigned problems and design reports explaining in detail the procedure employed.
- Amount of sections varied per semester, with a maximum of five sections of twenty-four students each.
- In charge of grading a load of the department exams for students taking Intro Physics

Graduate Teaching Assistant*August 2019 — June 2020**University Of Puerto Rico, Río Piedras Campus; San Juan, PR*

- In charge of an experimental laboratory course section for undergraduate students where they were taught how to prepare experiments, execute these, and design reports based on the obtained results.
- Offered additional tutoring sessions during personal office hours to students taking Physics courses.

Physics Tutor*September 2015 — May 2017**University Of Puerto Rico, Río Piedras Campus; San Juan, PR*

- Offered open tutoring sessions to undergraduate students taking Physics courses.

Teaching Assistant*June 2016 — July 2016**University Of Puerto Rico, Río Piedras Campus; San Juan, PR*

- Helped teach a STEM-focused summer camp for High School students.
- Camp was focused on the many applications of Physics to fields like Medicine, Engineering, Environmental Sciences among others.

SKILLS

Workplace

Organization · Flexibility · In-person and Remote work · Verbal, Visual, and Written Communication · Fluent in English & Spanish · Cooperative · Problem-solving · Adaptability ·

Programming and SoftwarePython (Experienced) · C/C++ (Intermediate) · R (Intermediate) · \LaTeX (Experienced) · Octave (Intermediate) · Microsoft Office 365 (Experienced)