

## Curriculum Vitae

# PAOLA A. ALICEA ROMAN

### Undergraduate Student

Urb. La Estancia 11 calle Olivo Las Piedras,

Puerto Rico 00771

E-mail: [paola.alicea4@upr.edu](mailto:paola.alicea4@upr.edu)

### EDUCATION

August 2017-  
present Junior, bachelor's degree of Science Major Wildlife  
Management at University of Puerto Rico in Humacao (UPRH)

August 2014-  
May 2017 Ramon Power y Giralt High School, Marketing and Service under DECA in  
Las Piedras, Puerto Rico

### HIGHER EDUCATION AND COURSE WORK EXPERIENCE RELATED TO FIELDS OF INTEREST

August 2019 Computational Methods Applied to Biological Systems  
August 2019 Biometry  
August 2019 Data Visualization: Special Topics in Biology  
January 2019 Taxonomy

### COMPUTER SKILLS

OS: Windows, Linux and Unix

Microsoft Office Programs, Libre Office Programs, Inkscape, Spyder, Rstudio, Jupyter notebook

#### **Programming Languages:**

R, Python, Bash

### LANGUAGES

Spanish (first language); English (written and spoken)

### RESEARCH EXPERIENCE

August 2019 -  
Present Undergraduate Student Researcher Mentor: Riccardo Papa at University of  
Puerto Rico- Rio Piedras. Project: Perfect mimicry between *Heliconius* butterflies is  
constrained by genetics and development

Summer 2019 Intern at Interdisciplinary and Quantitative Biology REU in University of Puerto  
Rico- Rio Piedras supported by NSF REU funding: **NSF-DBI-1852259** Project:  
Characterizing Color Pattern Diversity and its *cis*-Regulatory Architecture in *Heliconius  
melpomene*

January 2019 –  
May 2019 Undergraduate Student Biology Researcher, Project: Mentor: Raul Perez Rivera  
at University of Puerto Rico in Humacao.

August 2017 –  
May 2019 Undergraduate Student Researcher, Project: Cubic Crystal in Molecular  
Dynamics Simulation, Mentor: José O. Sotero Esteva supported by NSF/ PREM  
(Partnership Research Education in Materials) in UPRH

- Summer 2016 – May 2017 High School intern at University of Puerto Rico in Humacao under PREM  
Mentor: José O. Sotero Esteva
- June 2 -10 2016 Summer High School intern “Experimenta con PREM” (Summer Research Program for High School Students) under PREM at UPRH. Worked in laboratories of Chemistry, Physics and Computational Mathematics.
- February 13- April 2, 2016 Intern at Future Scientists Program for High School students under EcoExploratorio: Science Museum of Puerto Rico and AMGEN in San Juan, Puerto Rico.

### **RESEARCH FELLOWSHIPS AND AWARDS**

- August 2017 – 2019 Undergraduate Research Fellowship under PREM at UPRH

### **PRESENTATIONS**

- November 7, 2019 Perfect mimicry between *Heliconius* butterfly is constrained by genetics and development at Neurobiology Symposium: Moving and sensing in a complex environment in UPR-Rio Piedras.
- November 1, 2019 Perfect mimicry between *Heliconius* butterfly is constrained by genetics and development at 2<sup>nd</sup> Halloween Annual Science Retreat in UPR-Rio Piedras
- October 10, 2019 Characterizing Color Pattern Diversity and its *cis*-Regulatory Architecture in *Heliconius melpomene* on Productive Summer of Undergrads activity in University of Puerto Rico-Humacao
- August 31 & July 1 Computer Vision for Efficient Databasing in rapid adaptation at IQBIOREU Hackathon 2019 in Engine4 Co-working Space at Bayamón Puerto Rico
- July 30, 2019 Characterizing Color Pattern Diversity and its *cis*-Regulatory Architecture in *Heliconius melpomene* on closing activity in University of Puerto Rico- Rio Piedras
- April 28, 2018 Crystal Structure Editor for Molecular Dynamics Simulations of Metals on Junior technical Meeting at University of Turabo.
- June 10, 2016 Surface Tension in Molecular Dynamics Simulation on “Experimenta con PREM” at UPRH

### **WORKSHOPS (GIVEN)**

- October 26 & November 2 & 9 2019 Quantitative Analysis Workshop Applied to Public Health for Undergraduates, student assistant of Dr. Denny Fernández at UPR-Carolina
- May 31, 2018 Introduction to Python Programming and Ubuntu for Highschoolers in Experimenta con PREM at UPRH.
- April 12, 2018 Introduction to Python Programming for Highschoolers at UPRH.

### **WORKSHOPS (PARTICIPATED)**

September 20-22 2019	Explore NEON Workshop at UPR-Rio Piedras
July 31- August 1, 2019	IQBIO HACKATHON at Engine4 Co-working Space in Bayamon Puerto Rico
July 19-20, 2019	Brains, Minds and Machines: Introduction to computational tools used in neuroscience. MIT program, Speakers: Taylor Baum PhD, Hector De Jesus-Cortes PhD, Josefina Correa. Place: UPR-Rio Piedras
July 12- 13, 2019	Data Reproductivity (REPLICATHON). Moderators/Speakers: Patrick Kimes PhD and Kelly Street PhD. Place: UPR-Rio Piedras
June 12, 2019	Statistics in Biology. Speaker: Maria-Eglee Perez PhD. Place: UPR-Rio Piedras
June 3-7, 2019	Software Carpentries. Instructors: Sofia Melendez and Humberto Ortiz-Zuazaga. Place: UPR-Rio Piedras

### **CERTIFICATIONS**

June 10 – 2019	Certified CITI Program: Learner Groups for Researchers (Investigators, Assoc. Investigator, Lab Tech/Manager, Graduate and Undergraduate)- Basic Course. Expiration Date: June 9, 2022. Record ID: 31877797.
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### **PAST AWARDS OR HONORS**

August 2017 – 2019	Undergraduate Research Fellowship under PREM at UPRH
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### **ACADEMIC AFFILIATIONS**

2019-present	Society of Women in Space Exploration Chapter UPRH
2018- present	Students Association Wildlife Management, UPRH
2018- present	Harimau Conservation Student Association, UPRH
2018- present	Ecological Society of America Strategies for Ecology Education, Diversity and Sustainability (EOS SEEDS), UPRH
2018- present	Association for Student of Physics and Electronics, UPRH
2017- present	Member of UPRH Choir (Alto)
2016 – 2019	PREM Students Committee, UPRH
2014- 2017	Student Association for distributive Educational Clun of America (DECA)

### **VOLUNTEER EXPERIENCE (OUTREACH)**

2019 – present	Board member of Students Association Wildlife Management, UPRH
2018	NANO Days Outreach for Elementary Students at Luz A. Cruz de Santana Elementary School in Humacao Puerto Rico. (A group of Undergrad Researchers under PREM come together and teach younger students about Material Science.)

### **OTHER EXPERIENCES/SKILLS**

Hiking, Alto Singer, Highschool Student Mentoring

References upon request