

Carlo Esquivia

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1580 Yosemite Drive Apt 16, Los Angeles, CA

Education

Hamilton College

Bachelor of Arts in Physics and Minor in Mathematics; GPA 3.5

Clinton, NY, USA

May 2019

University of California, San Diego

Maintained and earned an A- average during Summer Program

San Diego, CA, USA

Summer 2017

Skills and Relevant Coursework

Programming Languages: Working experience in C++, Python, Linux, HTML, CSS, and SQL

Programming Interests: The application of machine learning to strategy games

Relevant Coursework: Intro. Econ., Accounting, Quantum physics, and Classical Mechanics

Professional Experience

Northwestern University

Research Experience for Undergraduates (REU), Research Assistant

Evanston, IL, USA

Summer 2018

Worked with Wen-Fai Fong, Ph.D., to generate short Gamma-ray Burst (GRBs) simulations from experimental data. We were motivated to increase the number of off-axis detections by developing new observational strategies. I created a series of python scripts to manipulate large arrays of observed short GRBs and wrote a number of bash scripts to use Northwestern's supercomputer cluster, QUEST, to run thousands of simulations in parallelization, which reduced our run-time from 1 month to 4 days to 6 hours. Our results have the potential to change how astronomers make their measurements of GRBs.

Hamilton College

Physics Department, Research Assistant

Clinton, NY, USA

Summer 2016

Worked with Kate Brown, Ph.D., in the Interdisciplinary study of Physics and Art to discredit purported evidence of fractals in the human drumming of percussive instruments.

Analyzed the drumbeat patterns of commercial music software and hardware for evidence of precision, accuracy, randomness, and fractals.

Hamilton College

Academic Center for Excellence (ACE), Lab Supervisor

Clinton, NY, USA

August 2015 -- Present

Maintained a lab space for HEOP and POSSE students preparing for exams, collaborating on projects, or utilizing the school's tools for their academic success.

Utica Refugee Learning Center

Volunteer and Tutor

Utica, NY, USA

Spring 2017

Aided immigrants, locals, and the homeless improve their communication skills and reading comprehension and gain mathematical skills necessary for obtaining work. In addition, advised individuals on basic financial literacy.

Extracurricular Activities and Interests

Club Waterpolo: 7 years of competitive waterpolo for high school and college club teams.

Volleyball: 6 years of playing organized and pick-up in Los Angeles, San Diego, Chicago, and New York.

Personal Skills: Voice impersonations, stand-up, and impromptu

Hobbies: Invention journal, culinary tourism, drawing, and music.