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Matthew Moocarme

A motivated, skilled PhD physicist with comprehensive, in-depth programming experience, strong problem-solving skills and excellent communication.

EXPERIENCE

The Graduate Center of CUNY
Graduate Student Researcher
2010 - present

- Developed, implemented, and tested new and novel theories that end in peer-reviewed publications.
- Built analytical models and tools with mathematical software and scripting languages.
- Designed experiments to test hypotheses quickly and efficiently to gain intuition and results.

Queens College of CUNY
Adjunct Lecturer
2011 - present

- Overhauled and taught the "Physics for Computer Scientists II" lab, that incorporated Python and Matlab to develop students understanding of physics.
- Emphasis placed on understanding causal relationships and communicating results via visualizing data.

EDUCATION

Expected Graduation: September 2016

THE GRADUATE CENTER OF CUNY PhD Physics in progress

THE GRADUATE CENTER OF CUNY M.Phil. Physics in progress

QUEENS COLLEGE OF CUNY M.S. Physics in progress

CALIFORNIA STATE UNIV., LONG BEACH B.S. Physics, 2010
GPA: 3.85

3 first author publications
DOI: 10.1364/OE.23.028471,
DOI: 10.1364/OME.4.002355,
DOI: 10.1021/nl4039357,
1 in progress

Other publications
DOI: 10.1364/OPTICA.2.000447,
DOI: 10.1364/OE.20.019214,
DOI: 10.1364/OE.24.010402,
1 in progress

INDEPENDENT PROJECTS

Has Vision Zero Worked? - public.tableau.com/profile/matthew.moocarme/

An analysis into whether Bill de Blasio's campaign to reduce the number of traffic-related injuries in NYC is successful, and data-driven recommendations for increasing its effectiveness.

Does the Concentration of Airborne Lead Affect the Number of Complaints due to Lead in NYC?

- rpubs.com/moocarme/Pb-R-Analysis

An investigation into the correlation between airborne concentration of lead and number of NYC 311 complaints.

Why does all country music sound the same? - github.com/moocarme/RiffCh Cruncher

Data mining song data of country music and comparing data to other genres.

Coursera Data Science Specialization - <https://www.linkedin.com/in/matthew-moocarme-78a053b6>

PROFESSIONAL SKILLS

MATLAB ● ● ● ● ●

SQL/HIVE ● ● ● ● ●

LaTeX ● ● ● ● ●

PYTHON ● ● ● ● ●

GIT ● ● ● ● ●

ILLUSTRATOR ● ● ● ● ●

R ● ● ● ● ●

TABLEAU ● ● ● ● ●

HADOOP/SPARK ● ● ● ● ●