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Matthew Moocarme

A motivated, skilled PhD physicist with comprehehsive programming experience, a strong problem-solver with skills in data visualization, and a bias towards action.

EXPERIENCE

The Graduate Center of CUNY - Graduate Student Researcher
2010 - present

- Deleveoped new theories that end in peer-reviewed publications.
- Built analytical models in mathematical 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, incorporated Python and Matlab to develop an understanding of physics.
- Emphasis of teaching 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

PUBLICATIONS

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? - *moocarme.github.io/Vision-Zero*
An analysis into whether Bill de Blasio's campaign to reduce the number of traffic-related injuries in is NYC is successful, and data-driven recommedations for increasing its effectiveness.

Google Trends Predict Stock Market Returns - *moocarme.github.io/AppleStockPred*
Time-series analysis shows that stock market returns can be predicted by google trends. Increases performace of ARIMA-GARCH model to 6% annual return on investment and runs in 29% of the time.

Why does all country music sound the same? - *moocarme.github.io/riffCode*
Data mining song data of country music with comparison to other genres.

Coursera Data Science Specialization - *linkedin.com/in/matthew-moocarme-78a053b6*

PROFESSIONAL SKILLS

PYTHON	●●●●●	SQL/HIVE	●●●●●	LaTeX	●●●●●
R	●●●●●	GIT	●●●●●	ILLUSTRATOR	●●●●●
MATLAB	●●●●●	TABLEAU	●●●●●		