# Dillon R. Gardner

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#### **SUMMARY**

Data scientist with experience across the entire pipeline: from a vague idea, to defined data-centric question, through data cleaning and aggregation, algorithm research and development, and finalized product. I excel at understanding how to translate from business questions to rigorous experiments and back again. I want to continue to develop data-driven insights to help change the world.

#### **EXPERIENCE**

EnerNOC – Boston, MA 2015-Present

Data Scientist

- Designed, developed and prototype predictive algorithms tailored for specific business uses and constraints
- Developed R package to provide real-time estimate over anomalous data points in streaming electricity usage data
- Collaborated with engineering teams to productionize algorithms in Scala to be deployed in Docker containers on AWS
- Developed interactive R Shiny applications to prototype algorithms and products
- Designed and led multidisciplinary team on short project to test business case for data science inspired products
- Hired and supervised interns. Scoped out appropriate projects that provided learning opportunities and value to EnerNOC
- Presented to both EnerNOC and broader data and computer science community

Massachusetts Institute of Technology – Department of Physics; Cambridge, MA *Graduate Research Assistant*  2008-2015

Adviser: Young S. Lee

- Studied novel electronic and magnetic materials to discover new materials and physical phenomena with potential applications in energy transport, energy efficiency, and computing
- Created and wrote experimental proposals for work at Department of Energy National Laboratories
- Supervised and developed research plan for an undergraduate student

#### **PROJECTS**

Residential Solar Energy 2014-2015

- Studied the affect of residential rooftop solar panels on average generation costs per consumer to investigate potential business model of aggregating solar customers
- Scrapped data using Python from ISO New England and NREL utility on photovoltaic production
- Determined a typical solar customer costs power providers \$0-5 per MWh less than a non-solar customer

## **EDUCATION**

# Massachusetts Institute of Technology; Cambridge, MA

2015

- Doctor of Philosophy in Physics
- Thesis: "X-ray scattering investigations of subtle ordering in correlated materials" Advisor: Young S Lee

#### Boston College; Chestnut Hill, MA

2008

- Bachelor of Science in Physics, Minor in International Studies; Magna Cum Laude
- Awards: Presidential Scholar (one of 15 full tuition academic scholarship)

### **SELECT TALKS**

• "Big Data Workshop: A crash course in machine learning for architects part one" (2016) With Husain al-Mohssen

https://archconf.com/conference/speaker/dillon\_gardner

## **SELECT NON-ACADEMIC PUBLICATION:**

- "Time for Scientists to Embrace the Word 'Investment'" Dillon R. Gardner Continuum (2014) http://spectrum.mit.edu/continuum/time-for-scientists-to-embrace-the-word-investment/
- "Brandon Marshall is Better than Drew Brees and Other Fantasy Truths" **Dillon Gardner** *Deadspin* (2013) http://deadspin.com/brandon-marshall-is-better-than-drew-brees-and-other-f-1245470118