

# DILLON R. GARDNER

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## SUMMARY

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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 create new products and businesses.

## EDUCATION

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**Massachusetts Institute of Technology** 2008 - 2015

Ph.D. in Physics

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

**Boston College**

2004 - 2008

B.S. in Physics; Minor in International Studies

Presidential Scholar (one of fifteen full tuition academic scholarships)

## EXPERIENCE

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**Data Science Consultant** 2016 - Present

**nToggle** - programmatic advertising

- Prototyped a streaming system using Apache Spark to automate user targeting lists for algorithmic advertising partners from 100 million request per day data stream
- Developed attribute selection algorithms running on Apache Airflow
- Collaborated with Technical Account Managers to provide custom analytics for clients

**EnerNOC**

2015 - 2016

*Data Scientist*

- Designed, developed, and prototyped machine learning 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
- Hired and supervised interns. Scoped out appropriate projects that provided learning opportunities and value to EnerNOC

**Massachusetts Institute of Technology**

2008 - 2015

*Graduate Research Assistant*

- Studied novel electronic and magnetic materials to discover new materials and physical phenomena with potential applications in energy transport, energy efficiency, and computing
- Supervised and developed research plan for an undergraduate student research projects

## PROJECTS

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**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
- Determined a typical solar customer costs power providers \$0-5 per MWh less than a non-solar customer

## SELECT TALKS AND PUBLICATIONS

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“Big Data Workshop: A crash course in machine learning for architects part one” (2016)

[https://archconf.com/conference/speaker/dillon\\_gardner](https://archconf.com/conference/speaker/dillon_gardner)

“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>