John Dwyer

1549 SE 28th Pl.
Portland, OR 97214

(914) 584-7518
jgdwyer@gmail.com

PROFILE

Data Scientist with a Ph.D. in Applied Mathematics. Well-versed in machine learning, statistical methods, and numerical models. Self-motivated and driven to use data constructively to make (good) decisions. Passionate about communicating complex ideas to non-technical audiences.

PROFESSIONAL EXPERIENCE

Insight Data Science
Fellow *Jan 2017 – Mar 2017*
Learning cutting-edge data science tools and practices in this 7-week project-based, collaborative program for academics transitioning to data science.

Massachusetts Institute of Technology
Postdoctoral Fellow, Department of Earth, Atmosphere and Planetary Sciences *Sep 2014 – Jan 2017*
Trained and implemented a neural network to replace the convection scheme in a numerical global climate model. Applied time-series methods to hurricane models to predict shorter future hurricane seasons. Quantified effects of moisture on wave-mean flow interaction with partial differential equations.

Columbia University
Graduate Research Fellow, Department of Applied Math *Sep 2009 – Aug 2014*
Performed climate model simulations and used principal component analysis to quantify how global warming affects seasonality.

University of California, San Diego
Graduate Research Fellow, Department of Physics *Sep 2007 – Aug 2009*
Used regression methods to quantify impact of pollution on "global dimming."

Columbia University
Undergraduate Research Fellow, Department of Physics *May 2005 – Aug 2007*
Created a genetic algorithm to develop different search methods to find gravitational wave signals in noisy data.

Mathematics and Physics Instructor May 2005 – Aug 2014
Teaching assistant for over 15 courses. Manager for 30 Physics Lab teaching assistants at UCSD.

EDUCATION

Columbia University
Ph.D. in Applied Mathematics *2009 – 2014*

University of California, San Diego
M.S. in Physics *2007 – 2009*

Columbia University
B.A. in Mathematics and Physics *2003 – 2007*

TECHNICAL SKILLS

Software and Programming Languages
Python, Matlab, R, Linux, LaTeX, shell scripting, parallel computing, Fortran, SQL

Statistical and Mathematical Methods
Time series analysis, regression models, principal component analysis, partial differential equations

Machine Learning
Artificial Neural Networks, Random Forests and Genetic Algorithms

HONORS & AWARDS

NSF Postdoctoral Research Fellowship *2015 – 2016*

Simon Prize for Most Outstanding Doctoral Dissertation *2015*
Department of Applied Physics and Applied Math at Columbia University

NASA Earth and Space Science Graduate Fellowship *2011 – 2014*