

# Colin Pawlowski

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**Education**    **Massachusetts Institute of Technology**, Cambridge, MA  
Candidate for Ph.D. in Operations Research; expected completion, 2018. GPA: 5.0/5.0  
Supported by National Science Foundation (NSF) Graduate Research Fellowship.  
Advisor: Dimitris Bertsimas

**Yale University**, New Haven, CT  
B.S. in Mathematics (Intensive), May 2014.  
GPA: 3.93/4.00; Magna Cum Laude, Phi Beta Kappa Society.

## Work Experience

**2014**            **Ancera, Inc.**, Branford, CT  
(Summer)        *Analytics Intern*  
Brainstormed and strategized data approaches for biotech startup specializing in rapid microbial testing for food producers. Developed web application for real-time laboratory management, and implemented systems in Amazon Web Services.

## Research Experience

**2014–Present MIT Operations Research Center**, Cambridge, MA  
*Research Assistant*  
Advisor: Dimitris Bertsimas  
Developed fast, tractable algorithms in machine learning for statistical inference using tools from optimization, with a focus on SVMs for classification,  $k$ -means clustering, and missing data imputation. Collaborating with MDs from Dana Farber Cancer Institute to develop personalized healthcare recommendations to improve patient outcomes.

**2013**            **Mount Holyoke College REU**, South Hadley, MA  
(Summer)        *Undergraduate Researcher*  
Advisor: Dylan Shepardson  
Researched mathematical modeling and epidemiology. Programmed a population-level model for tuberculosis in the USA, with cost analysis for several intervention strategies.

**2011-2012**    **NASA Flight Opportunities Program**, Houston, TX  
*Microgravity Research Team Leader*  
Advisor: Andrew Szymkowiak  
Led a team of six students; built a prototype of a 3-D cell culture apparatus and tested it aboard NASA's zero-gravity plane. Collaborated with a NASA biologist studying the effects of space-radiation induced carcinomas. Completed test flight aboard NASA "Zero-G" 727 aircraft in May 2012.

## Teaching Experience

**2015** MIT Sloan School of Management, Cambridge, MA  
(Fall) *Teaching Assistant* for MBA core course: Data, Models, and Decisions (15.060)  
Taught weekly recitations, developed course materials, worked one-on-one with students, graded assignments.

## Publications

“*Robust Classification*”, with D. Bertsimas, J. Dunn, and Y. Zhuo; submitted to Journal of Machine Learning Research, 2015.

## Presentations

“*Missing Data Imputation via a Modern Optimization Lens*”, with D. Bertsimas and Y. Zhuo; INFORMS Nashville, 2016.

“*Robust Support Vector Machines*”, with D. Bertsimas; INFORMS Philadelphia, 2015.

“*Novel Properties of Deterministic and Stochastic SIR Models*”, with J. Ginépro, E. Hartman, R. Kimura, M. McDermott, D. Shepardson; Joint Mathematics Meetings Conference in Baltimore, 2014; Smith College Women in Mathematics in New England Conference, 2013.

## Honors and Awards

**2016** athenahealth Hackathon Grand Prize  
**2015** NSF Graduate Fellowship  
**2012** Richter Summer Fellowship  
**2011** NASA Flight Opportunities Program, national research grant  
**2011** Connecticut Space Grant Consortium Project Grant

## Skills and Activities

*Programming*: Java, C/C++, Python, Julia  
*Mathematical Tools*: Matlab, Stata, R

*Volunteer*, The Full Belly Project, Non-profit engineering group, 2010-2012

**Citizenship** Citizen of United States of America