

Nathaniel Price

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Education

2016	Joint Ph.D. Mechanical Engineering Gainesville, Florida, US and Saint-Étienne, Rhône-Alps, France	University of Florida École des Mines de Saint-Étienne
2014	Graduate Certificate in Scientific Computing Gainesville, Florida, US	University of Florida
2014	M.S. Mechanical Engineering Gainesville, Florida, US	University of Florida
2012	B.S. Mechanical Engineering Gainesville, Florida, US	University of Florida

Experience

May 2020 - present	Senior Data Scientist Golden, Colorado, US	ICF
	<ul style="list-style-type: none">• Developed cloud infrastructure and data science processes for scalable analysis of billions of records of utility smart meter data• Researched and developed statistical methods for energy disaggregation	
Oct 2019 - May 2020	Data Scientist Golden, Colorado, US	ICF
Sep 2016 - Oct 2019	Data Scientist Lincoln, Nebraska, US	University of Nebraska-Lincoln
	<ul style="list-style-type: none">• Developed new method to predict customer retention and purchase probabilities with individual level granularity (applied to 1.2 million purchase records)• Designed, developed, and deployed web-based data analysis application in R for exploratory data analysis of SQL customer database	
Oct 2014 - Mar 2016	Ph.D. Student Researcher Palaiseau, Île-de-France, France	ONERA - The French Aerospace Lab
	<ul style="list-style-type: none">• Developed a novel method for optimal design of sounding rocket under uncertainty that incorporated risk of future redesign into design optimization	
Aug 2012 - Jul 2016	Graduate Research Assistant Gainesville, Florida, US	University of Florida
	<ul style="list-style-type: none">• Integrated machine learning (e.g., Gaussian process) and optimization to design engineering systems considering uncertainty in future decision making process• Collaboratively developed optimization-based solution to The NASA Langley Multidisciplinary Uncertainty Quantification Challenge (2014)	

Software

1. Price, N, C Chizinski, and J Burnett (n.d.). *radsets - An R Package for creating Radial Sets diagrams*. <https://natbprice.github.io/radsets/>.
2. Price, N and J Burnett (n.d.). *tvdiff - An R Package for performing total variation regularized differentiation*. <https://github.com/natbprice/tvdiff>.

Data Science Skills

Communication: presentations (technical and non-technical), dashboard design, data analysis reports, scientific publications, data visualization

Programming Languages: R, Python, SQL, Matlab, C++

Software Development: version control, automated testing, continuous integration

Numerical Methods: optimization (stochastic, genetic, multi-start), numerical solution of differential equations

Statistics: machine learning, data analysis, generalized linear regression, cluster analysis, factor analysis, principal components analysis (PCA), cross validation, generalized additive models, data analytics, Monte Carlo simulation