

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

Sep 2016 - present	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)	

Awards

2013	Knox T. Millsaps Outstanding Undergraduate Paper Award
2012	Biomedical Engineering Society (BMES) Design and Research Award
2009	American Institute of Aeronautics & Astronautics (AIAA) Foundation Junior Scholarship

Select Publications

1. Price, NB, M Balesdent, S Defoort, RL Riche, NH Kim, and RT Haftka (Apr. 2019). Safety-margin-based design and re-design considering mixed epistemic model uncertainty and aleatory parameter uncertainty. *arXiv:1904.08978 [stat]*.
2. Balesdent, M, L Brevault, NB Price, S Defoort, R Le Riche, NH Kim, RT Haftka, and N Bérend (2016). "Advanced Space Vehicle Design Taking into Account Multidisciplinary Couplings and Mixed Epistemic/Aleatory Uncertainties". In: *Space Engineering: Modeling and Optimization with Case Studies*. Ed. by G Fasano and JD Pintér. Cham: Springer International Publishing, pp.1–48. https://doi.org/10.1007/978-3-319-41508-6_1.
3. Price, NB, NH Kim, RT Haftka, M Balesdent, S Defoort, and R Le Riche (Sept. 2016). Deciding Degree of Conservativeness in Initial Design Considering Risk of Future Redesign. *Journal of Mechanical Design* **138**(11), 111409–111409–13.

Software

1. Price, N and J Burnett (Mar. 2019). *tvdiff - An R Package for performing total variation regularized differentiation*. (lifecycle: experimental). <https://github.com/natbprice/tvdiff>.

Previous Experience

2011 - 2012	Undergraduate Research Assistant, University of Florida, Gainesville, Florida, US
2010 - 2011	Launch Engineer Intern, SpaceX, Cape Canveral, Florida, US
2009 - 2010	Undergraduate Research Assistant, University of Florida, Gainesville, Florida, US
2005 - 2010	Engineer Intern, E&S Consulting, Inc., St. Augustine, Florida, US