Nathaniel Price

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| Education | | |
|-----------|---|----------------------------------|
| 2016 | Joint Ph.D. Mechanical Engineering Saint-Étienne, Rhône-Alps, France | École des Mines de Saint-Étienne |
| 2016 | Joint Ph.D. Mechanical Engineering Gainesville, Florida, US | University of Florida |
| 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

University of Nebraska-Lincoln

Lincoln, Nebraska, US

- 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

2014 - 2016 Ph.D. Student Researcher Palaiseau, Île-de-France, France

ONERA - The French Aerospace Lab

Developed a novel method for optimal design of sounding rocket under uncertainty that incorporated risk of future redesign into design optimization

2012 - 2016 Graduate Research Assistant

University of Florida

Gainesville, Florida, US

- 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)

Select Awards

2013 Knox T. Millsaps Outstanding Undergraduate Paper Award

2012 Biomedical Engineering Society (BMES) Design and Research Award

Select Publications

- 1. Price, NB, M Balesdent, S Defoort, RL Riche, NH Kim, and RT Haftka (Apr. 2019). Safety-margin-based design and redesign considering mixed epistemic model uncertainty and aleatory parameter uncertainty. *arXiv*:1904.08978 [stat].
- 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.

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 |
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| 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 |