JEFF KELLER

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307 Meadow Ridge Lane
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SUMMARY

Experienced Data Scientist with strong statistics, technology, and communication skills. Adept at conveying complex concepts to audiences of varying technical abilities. Worked in a number of public and private contexts, including automotive, consumer packaged goods, industrial equipment maintenance, and aircraft manufacturing. Presented at a number of leading conferences with awards for Best Paper and Best Poster. Expert in modern "full-stack" Data Science, relevant technologies, and bringing value directly to business applications. Deep knowledge of Frequentist and Bayesian Machine Learning methods.

Technologies: R, Python, git, SQL, GNU/Linux, Docker
Platforms: AWS, Snowflake, GitHub, GitLab, Connect, Kubernetes

EXPERIENCE

Lead Data Scientist E Inc. 2022 to present
- Providing technical leadership to a Data Science team to adopt cloud-based workflows and ModelOps practices
- Developing a wholesale vehicle recommendation engine to support a personalized automotive auction experience

Lead Data Scientist Cox Automotive 2018 to 2022
- Invented an enterprise hierarchical Bayesian Markov modeling capability for marketing attribution, budget optimization, customer intervention, and session valuation
- Developed a joint glmnet + Random Forest model to optimize Search ad campaigns
- Pioneered cloud-first Data Science ModelOps patterns and infrastructure
- Deployed and administrated Data Science workbench, publishing, and deployment platforms and environments
- Mentored a group of 8 to 12 junior and senior Data Scientists

Senior Data Scientist Cox Automotive 2016 to 2018
- Designed and productionized an enterprise consumer vehicle recommendation engine
- Built Random Forest models to predict vehicle sales from anonymous website activity
- Led the Data Science organization's transition into the cloud (AWS)
- Created R and Python packages to increase productivity of other Data Scientists

Lead Analyst RSG 2014 to 2016
- Designed and implemented novel agent-based economic simulation models for government policy and scenario planning use-cases
- Productionized and integrated embedded machine learning business applications
- Developed custom data ETL and warehousing tools

Senior Analyst	RSG	2010 to 2014

- Developed statistical models of consumer purchase behavior for optimizing prices and product configurations
- Designed research experiments to quantify consumer preferences and willingness-to-pay
- Segmented and personified customer audiences using latent class clustering techniques

EDUCATION

Pennsylvania State University	University Park, PA

- M.S. Applied Statistics

University of Vermont	Burlington, VT

- B.A. in Mathematics
- B.A. in Economics

PUBLICATIONS, PRESENTATIONS, AND MEMBERSHIPS

Jeff Keller. (2017). *The Consumer Vehicle Recommendation Engine: Building a Cox Automotive Personalization Ecosystem*. Cox Enterprises Annual Analytics Summit, Atlanta, GA.

Jeff Dumont, Jeff Keller, Nelson Whipple. (2015). *Understanding How Covariates Perform Across Different HB Packages*. 26th Annual Advanced Research Techniques Forum, San Diego, CA. Winner of Best Poster.

Jeff Keller, Rachelle Ornan, Daniel Weinstein. (2015). *A Novel Dual-Choice Experiment in the Evaluation of Air Traveler Itinerary and Seat Preferences*. The International Choice Modelling Conference, University of Texas at Austin, Austin, TX.

Member. (2014 to 2017). Transportation Research Board of the National Academies Committee on Artificial Intelligence and Advanced Computing Applications (ABJ70).

Jeff Keller, Jeffrey Dumont, Nelson Whipple. (2014). *RSGHB: Using R to Expand the Capabilities for Hierarchical Bayesian Model Estimation*. 25th Annual Advanced Research Techniques Forum, Santa Fe, NM. Winner of Best Poster.

Jeff Dumont, Jeff Keller, Chase Carpenter (2014). *RSGHB: Functions for Hierarchical Bayesian Estimation: A Flexible Approach*. R package version 1.0.2. http://CRAN.R-project.org/package=RSGHB

Jeff Keller. (2014). *Using Random Forest Machine Learning to Predict Driver Behavior in a Dilemma Zone*. 93rd Annual Transportation Research Board Meeting's Data Competition Best Overall Paper winner.

Dan Weinstein, Jeff Keller. (2012). *Findings from RSG's Biennial Air Passenger Study*. The Revenue Management Conference, Georgia Institute of Technology, Atlanta, GA.

REFERENCES

References available upon request.