

KATHERINE LOUISE EVANS
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Relevant Skills

Missing data methods - multiple imputation, inverse probability weighting, doubly robust methods
Causal inference - SEMs, MSMs, inverse probability weighting, G-estimation
Machine learning - stacked ensemble learners that combine SVMs, GAMs, randomForests, nnets, etc
Study design/hypothesis formulation and testing, systematic literature reviews
Evaluating/cleaning/analyzing health (EHR, claims etc) and sports (play-by-play, spatial tracking) data
Extensive experience with R; proficient in SQL and Python

Education

PHD - BIOSTATISTICS *Harvard University* 2012-2017
Advisor: Eric Tchetgen Tchetgen;
Dissertation: Contributions to Semiparametric Methods for Incomplete Data
MA - BIOSTATISTICS *University of California, Berkeley* 2010-2012
BA - STATISTICS *Harvard University* 2004-2008

Experience

QUANTITATIVE ANALYST - *Verily Life Sciences*. Cambridge, MA 2017-Present
Responsibilities: Applying machine learning and causal inference to model diseases using EHR data
Statistical advising across numerous cross-functional teams through all stages of projects
Accomplishments: Completed literature review for CER submission for Class I medical device (UK)
Created medication adherence guidelines documentation
Created medication adherence prediction models for population segmentation
Directed audit of statistical methods used for EHR data disease modeling (HF)
Designed and performed interim analyses for diabetes management pilot
BIOSTATISTICS SUMMER INTERN - *Genentech*. South San Francisco, CA 2016
Summer project on methods for evaluating treatment combinations in Phase II clinical trials
Examining fractional factorial designs, sparsity, selection bias, and population drift

Publications and Presentations

Deshpande S and Evans K. "Expected Hypothetical Completion Probability: A Framework for Route Evaluation"
– Finalist in 2019 NFL Big Data Bowl
Evans K and Lopez M. "Treatment Effect Heterogeneity in MLB Bunting Strategies"
– Forthcoming invited talk at the 2019 Joint Statistical Meetings
Evans K. "The Causal Effect of a Catch and Shoot in the NBA"
– Contributed talk at the 2018 Joint Statistical Meetings
Evans K and Saini U. "Quantifying Foul 'Tilt' of NBA Players"
– Accepted to the 2017 Sloan Sports Analytics Conference research paper competition
– Invited talk at the 2018 Carnegie Mellon University Sports Analytics Conference
Mentor for the 2018 Google Cloud/NCAA "Change the Game" Hackathon