

Daniel M. McCarthy

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Philadelphia, PA 19104

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EDUCATION

University of Pennsylvania, Philadelphia, PA

Ph.D., *Statistics*. The Wharton School. 2017

Jerome Fisher Program in Management and Technology, 2002-2006

B.Sc. Econ., Summa Cum Laude, The Wharton School. *Statistics and Finance*

BAS, Summa Cum Laude, School of Engineering, *Systems Science Engineering*

RESEARCH INTERESTS

Bayesian Models

Time Series Analysis

Computational Methods

Customer Lifetime Value

Marketing-Finance Interface

Managerial Decision-making

PUBLICATIONS

1. **McCarthy, D.**; Zhang, K.; Berk, R.; Brown, LD; Buja, A.; George, E.; Zhao, L.¹ (2017). Calibrated Percentile Double Bootstrap For Robust Linear Regression Inference. *Accepted for publication at Statistica Sinica*.
 - a. Software: R package ‘perccal’ (CRAN)
2. **McCarthy, D.**; Fader, P.; Hardie, B. (2017). Valuing Subscription-Based Businesses Using Publicly Disclosed Customer Data. *Journal of Marketing*, 81(1), 17-35
 - a. Selected Press: Knowledge@Wharton, Dow Jones MarketWatch, Penn News Today, Business Radio on Sirius XM
3. **McCarthy, D.**; Jensen, S. (2016). Power Weighted Densities for Time Series Data. *Annals of Applied Statistics*, 10(1), 305-334
 - a. Software: R package ‘PWD’ (CRAN)
4. Brown, LD.; **McCarthy, D.** (2016). Comments on the paper, “An adaptive resampling test for detecting the presence of significant predictors.” *Journal of the American Statistical Association, Theory and Methods*, 110, 1446-1449

WORKING PAPERS

1. **McCarthy, D.**; Fader, P (2017). Valuing Non-Contractual Firms Using Common Customer Metrics. *Revise and Resubmit*.

¹ The primary authors of this publication are Daniel McCarthy and Kai Zhang.

- a. Selected Press: Knowledge@Wharton
2. **McCarthy, D.**; Fader, P.; Hardie, B. (2016). V(CLV): Examining Variance in Models of Customer Lifetime Value. *Completed first review at the Journal of Marketing Research*.

AWARDS AND GRANTS

Awards

ASA Annual Doctoral Research Award Winner	2017
MSI Alden Clayton Doctoral Dissertation Proposal Competition Award Winner	2017
ISMS Doctoral Dissertation Competition Award Winner	2016
Shankar-Spiegel Best Dissertation Proposal Award Winner	2016
Teaching Commitment and Curricular Innovation Award	2016
Penn Prize for Excellence in Teaching by Graduate Students	2015
University-wide award granted to 10 students annually	
Adobe Digital Marketing Research Award (\$50,000)	2015
Best Oral Presentation Award, 9 th Annual Probability and Statistics Conference	2015
Baker Retailing Center Grant (\$3,185)	2014, 2015, 2016, 2017
Summa Cum Laude, Dean's List, GPA: 3.87/4.0	2002-2006

PRESENTATIONS

1. INFORMS Marketing Science Society Conference: '*Valuing Noncontractual Firms with Common Customer Metrics*' (USC, 2017)
2. Vienna University of Economics and Business (Invited Talk): '*Customer-based Corporate Valuation*' (2017)
3. Goethe University Frankfurt (Invited Talk): '*Customer-based Corporate Valuation*' (2017)
4. HEC Paris (Invited Talk): '*Customer-based Corporate Valuation*' (2017)
5. Adobe Corporation (Invited Talk): '*CLV: From Inside and Out*' (2016)
6. Wells Fargo & Company (Invited Talk - Big Data Analytics Seminar Series): '*CLV: From Inside and Out*' (2016)
7. Wharton Private Equity and Venture Capital Association (Invited Talk): '*A Customer-Driven Approach to Valuation: CLV, from Inside and Out*' (New York City, 2016)
8. QVC, Inc. (Invited Talk): '*CLV: From Inside and Out*' (West Chester, PA, 2016)
9. The Marketing Modelers Group (Invited Talk): '*Valuing Subscription-Based Businesses Using Publicly Disclosed Customer Data*' (New York City, 2016)

10. Baker Retailing Center Annual Board Meeting (Invited Talk): '*CLV: From Inside and Out*' (University of Pennsylvania, 2015)
11. Joint Statistical Meetings: '*Comments on the paper, "An adaptive resampling test for detecting the presence of significant predictors" by I.W. McKeague and M. Qian*' (Joint author with Lawrence Brown, Seattle WA, 2015)
12. INFORMS Marketing Science Society Conference: '*Customer-Based Corporate Valuation via Data Fusion*' (Johns Hopkins University, 2015)
13. INFORMS Marketing Science Society Conference: '*V(CLV): Examining Variance in Models of Customer Lifetime Value*' (Johns Hopkins University, 2015)
14. 9th Annual Probability and Statistics Conference: '*Improved Coverage via Calibrated Percentile Double Bootstrap*' (UMBC, 2015)
15. Marketing Strategy Meets Wall Street Conference: '*V(CLV): Examining Variance in Models of Customer Lifetime Value*' (Singapore Management University, 2015)
16. Conference of the ASA Section on Statistical Learning and Data Mining: '*Improved Non-parametric Empirical Bayes Estimation for Sparse, Heteroskedastic Normal Means*' (Duke University, 2014)
17. Joint Statistical Meetings: '*Discussion of Estimation and Accuracy After Model Selection by Brad Efron*' (Joint author with Lawrence Brown, Boston MA, 2014)
18. INFORMS Marketing Science Society Conference: '*Data Diet: Modeling Customer Memory in Probabilistic Choice Models*' (Emory University, 2014)

TEACHING

Teaching Assistant

Marketing 476/776: Applied Probability Models in Marketing	2017
Marketing 476/776: Applied Probability Models in Marketing	2016
Marketing 476/776: Applied Probability Models in Marketing	2015
Statistics 435: Forecasting Methods for Management	2014
Statistics 102: Introductory Business Statistics	2014
Statistics 101: Introduction to Statistics	2013
Statistics 430: Probability	2013
Statistics 434: Financial Time Series Analysis	2012
Finance 206: Financial Derivatives	2005

Instructor

‘Buy ‘Til You Die’ Models R Workshop	2017
Stochastic Marketing Models in R Workshop	2015
Wharton Customer Analytics Initiative R Workshop (<i>170 enrolled</i>)	2015

Guest Lecturer

Marketing 775: Managing the Value of Customer Relationships	2017
Statistics 551: Introduction to Linear Statistical Models	2014, 2015

Supervisor

Research Assistants	2016-2017
Elliot Oblander, Jeffrey Cheng, Eric Dusseau, Namita Nandakumar, Joe Raso	
Penn Undergraduate Research Mentorship Program (‘PURM’)	2015
Namita Nandakumar, Shuangcheng Du	
UScholar Program, Michael Raevsky	2015
Undergraduate Independent Study in Marketing, Steven Peisach	2014

SOFTWARE

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1. Author and Maintainer: ‘*perc-cal*’ (R Package available on CRAN)
 2. Author and Maintainer: ‘*PWD*’ (R Package available on CRAN)
 3. Co-Author and Maintainer: ‘*BTYD: Implementing Buy ‘Til You Die Models*’ (R Package available on CRAN)

ACADEMIC SERVICE

Ad Hoc Reviewer

- Journals:
 - *Journal of the American Statistical Association (JASA)*
 - *International Journal of Research in Marketing (IJRM)*
- Conferences:
 - *European Conference on Information Systems (ECIS)*

Penn Prize for Excellence in Teaching, Steering Committee Member	2016
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Wharton Quinquennial Review, Statistics Department, Committee Member	2016
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WORK EXPERIENCE

Zodiac , Quantitative Marketing Technology	Philadelphia, PA
<i>Co-founder and Chief Statistician</i>	2015-current
Two Six Capital , Data Science-based Private Equity	Philadelphia, PA
<i>Research Advisor</i>	2015-current
Wharton Customer Analytics Initiative	Philadelphia, PA
<i>Resident Data Scientist</i>	2014-current
McMaster-Carr Supply Company , Supply Distribution	Princeton, NJ
<i>Management – Finance and Shipping</i>	2012

Boston Avenue Family Office, Hedge Fund
Investment Professional

Tulsa, OK; Santa Monica, CA
2006-2011