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Appointments

2016–Present	**Neyman Visiting Assistant Professor of Statistics, UC Berkeley, Berkeley, CA.**

Education

2010–2017	**PhD in Statistics, Harvard University, Cambridge, MA.** Dissertation: Superpopulation Generalization in Social Network Analysis.
2007–2008	**SM in Applied Mathematics, Harvard University, Cambridge, MA.**
2004–2008	**AB in Applied Mathematics, Harvard University, Cambridge, MA.**

Research

Papers in Preparation

A. D'Amour and E. Airoldi. The effective estimand. Ongoing work for publication and inclusion in dissertation.

A. D'Amour and E. Airoldi. Misspecification, sparsity, and superpopulation inference for sparse social networks. Ongoing work for publication and inclusion in dissertation.

A. D'Amour and E. Airoldi. Causal inference with social-interaction-valued outcomes. Ongoing work for publication and inclusion in dissertation.

Published Papers

2015	D. Cervone, **A. D'Amour**, L. Bornn, and K. Goldsberry. A multiresolution stochastic process model for predicting basketball possession outcomes. Accepted, *Journal of the American Statistical Association.*, 2015.
2014	D. Cervone, **A. D'Amour**, L. Bornn, and K. Goldsberry. Pointwise: Predicting points and valuing decisions in real time with NBA optical tracking data. *MIT Sloan Sports Analytics Conference 2014*, 2014.
2014	G. Li, R. Lai, **A. D'Amour**, D. Doolin, Y. Sun, V. Torvik, A. Yu, and L. Fleming. Disambiguation and co-authorship networks of the U.S. patent inventor database. *Research Policy*, 43(6):941–955, 2014.
2012	M. Lipsitch, O. Abdullani, **A. D'Amour**, W. Xie, D. Weinberger, E. Tchetgen, and J. Scott. Estimating rates of carriage acquisition and clearance and competitive ability for Pneumococcal serotypes in Kenya with a Markov transition model. *Epidemiology*, 23(4):510–519, 2012.
2008	R. Acharya, A. Ahmed, **A. D'Amour**, H. Lu, C. Morris, B. Oglevee, A. Peterson, and R. Swift. Improving major league baseball park factor estimates. *Journal of Quantitative Analysis in Sports*, 4(2), 2008.

Invited Talks

2015	Prediction is not enough: Designing decision-support statistics for causal inference and attribution. Invited talk at Lumos Labs in San Francisco, CA, October 2015.
2014	Pointwise: Predicting points and valuing decisions in real time with NBA optical tracking data. Research Paper Competition Finalist Presentation at MIT Sloan Sports Analytics Conference 2014, February 2014.
2013	Sparse is different: Covariate effect estimation on sparse networks. Invited talk presented in the PED Seminar series at MIT Lincoln Laboratory in Lexington, MA, November 2013.
2013	Multi-concept item response theory. Talk given at Knewton, Inc. in New York, NY, April 2013.
2012	Analysis of sparsity: An observation model for interaction data. Invited talk presented to the ISR and Tactical Systems Division of MIT Lincoln Laboratory in Lexington, MA, June 2012.
2009	Dataverse network patent network database project. Invited talk and workshop given at the University of Trento X Summer School in Networks and Innovation in Trento, IT, July 2009.

Conference Talks and Posters

2014	Sparsity misspecification and robust covariate effect estimation for sparse social networks. Talk given at the *Joint Statistical Meetings* in Boston, MA, August 2014.
2014	Real-time prediction of basketball outcomes using high-resolution spatio-temporal tracking data. Poster presented at the *International Society for Bayesian Analysis World Meeting 2014* in Cancun, Mexico, July 2014.
2012	Consistent estimation of counting processes on sparse networks. Poster presented at the *Neural Information Processing Systems* conference "Social network and social media analysis: Methods, models and applications" workshop in South Lake Tahoe, CA, December 2012.
2011	Why we think Obama ♡ Reagan: Feature selection in topic models using most similar dimension. Talk given at the *New England Statistics Symposium* in Storrs, CT, April 2011.

Media

2014	K. Goldsberry. Behind databall: A discussion on the methodology of expected possession value. Grantland. `http://grantland.com/the-triangle/behind-databall-a-discussion-on-the-methodology-of-expected-points-value/`, 2014.
2014	K. Goldsberry. Databall. Grantland. `http://grantland.com/features/expected-value-possession-nba-analytics/`, 2014.
2013	C. Duffy. Bayesian. Interview for radio show "You're the Expert", recorded at Oberon Theater, Cambridge, MA, January 2013.

Teaching

Awards

Fall 2014	**2014 Pickard Memorial Teaching Fellow.** Departmental award for sustained excellence in teaching.
Fall 2011, 2012 Spring 2013, 2014	**Harvard University Certificate of Distinction in Teaching.** University commendation for receiving excellent student evaluations.

Courses

Fall 2016	**STAT 88: Probability and Mathematical Statistics in Data Science.** Introductory course to provide technical depth for students taking Foundations of Data Science.

Spring 2014	**Teaching Fellow for Statistics 225: Spatial Statistics.**
	Graduate course introducing core topics in spatio-temporal statistical methods, covering both theoretical approaches and computational methods.
Fall 2013, 2014	**Teaching Fellow for Computer Science 109/Statistics 121: Data Science.**
	Introductory course concerning the diverse set of skills necessary for modern data science. Focus on prediction, visualization, Bayesian methods, and empirical model validation.
Spring 2013	**Teaching Fellow for Statistics 221: Statistical Computation and Visualization.**
	Graduate course on computational methods and visualization for moderns statistical problems. Topics include building probabilistic models, EM algorithm, MCMC techniques, and visualization using d3.
Fall 2011, 2012	**Teaching Fellow for Statistics 220: Bayesian Data Analysis.**
	Core graduate course on Bayesian approaches to model building, model selection, inference, and computation.
Spring 2012	**Teaching Fellow for Statistics 107: Financial Statistics.**
	Intro-level course applying basic statistical ideas to trading strategies in financial markets.
Summer 2011	**Teaching Fellow for Statistics S100: Introduction to Statistics.**
	Intro-level summer course for college and advanced high school students.

Professional Experience

2015–present	**Founding Partner at XY, LLC.**
	Sports analytics consultancy, with a focus on player-tracking data. Clients include Philadelphia 76ers, LA Dodgers, Arsenal, San Antonio Spurs, Dallas Mavericks.
2015–present	**Founding Partner at Damyata, LLC.**
	Data science consultancy. Founded with two partners with deep experience as data scientists in the tech space, Damyata focuses on enabling teams of any size to effectively exploit data. We offer advice and solutions over the full stack of technical, organizational, and analytical challenges that come with ramping up data science operations. Clients include Blue Apron and Demand Signals.
2013–present	**Data Science Consultant at FirstAccess, Inc.**
	Team lead on statistical modeling and experimental design for construction of real-time credit scores for microlenders and development of lending strategies that reduce default rates while expanding access to credit.
2014–2016	**Quantitative Analytics Consultant at Legendary Pictures.**
	Advisor for quant analytics unit for Legendary Pictures. Developed a market research tool to predict audience response to potential film properties in the pre-greenlighting stage of production. Currently supervising a project to estimate causal effects of marketing engagement with the intention of producing publications.
2012–2014	**Statistical Consultant at Knewton, Inc.**
	Developed statistical tools for an EdTech company's core adaptive teaching platform. Simultaneously assesses student proficiency and measures question difficulty across multiple concept areas.
2009–2011	**Statistical Consultant at Harvard School of Public Health.**
	Implemented statistical models of infection dynamics for a variety of contexts. Work featured in an *Epidemiology* publication and a software package prepared for the CDC.
2009–2010	**Statistical Programmer at Harvard Institute for Quantitative Social Science.**

Lead architect on NSF-funded project to construct and distribute the full collaboration network of inventors who have held patents in the United States since 1975.

2008 | **Senior Analyst at Lehman Brothers, Fixed Income Analytics.**

Implemented financial models in the Fixed Income Capital Markets Division.

Skills

Programming	Advanced proficiency in R, Python, C/C++, LaTeX. Experience with relational databases (MySQL, SQLite), graphical databases (Neo4J), and key-value databases (BerkeleyDB). Extensive development experience on Linux systems and the AWS stack.
Languages	Japanese (Intermediate), French (Intermediate).
Interests	Cycling, cooking, coffee, soccer, sports analytics.