Jonathan Tannen

215-760-9842 ▪ jonathan.tannen@gmail.com

Current Position

Research Engineering Manager, Meta Responsible AI   2019-Present
Manage team of researchers with the mission of ensuring that all ML-supported systems at Meta are deployed free of bias. Research includes developing novel, product-specific methodologies, and building generalized tooling to scale to the company. New York, NY. Research Scientist from 2017-2019.

Education

Princeton University   Princeton, NJ
Ph.D. in Public Policy, Urban Policy and Population Clusters, in the School of Public and International Affairs and the Office of Population Research received September 2016. Coursework includes the Economics Dept.'s Microeconomics and Econometrics series, Demography, Urbanization and Development.

University of Pennsylvania   Philadelphia, PA
M.S.Ed in secondary science and math education received in May 2009. Master's Thesis work in Portfolio-Based Assessments. Coursework includes: Math and Science Methods, Child Psychology, Urban Ed.

Harvard University   Cambridge, MA
A.B. Cum Laude in Physics and Math received in 2007. Coursework includes: Abstract Algebra, Complex Analysis, Quantum Mechanics, Thermodynamics, Spanish, Economics.

Dissertation

"Measuring neighborhood change as the movement of emergent boundaries."
Committee: Douglas Massey, Matthew Salganik, and Scott Lynch. Reader: Thomas Espenshade.
https://dataspace.princeton.edu/handle/88435/dsp01pz50gz56r

Professional and Volunteer Experience

Founder and Blogger, Sixty-Six Wards   2017-Present
Run a personal datascience blog on Philadelphia Politics at www.sixtysixwards.com. In doing so, I developed two citizen-science tools: the Live Turnout Tracker (https://jtannen.github.io/election_tracker.html) and the Ward Portal (https://jtannen.shinyapps.io/wardportal/).

Director of Research, Econsult Solutions Inc.   2016-2017
Clients include SEPTA, the NYC Economic Development Corporation, Macarthur-funded Chicago TREND.

Ph.D. Intern, Facebook   Summer 2015
Internship with the Core Data Science Team at Facebook Menlo Park campus. Research included using text data to identify categories of neighborhood:
https://instagram-engineering.com/instagrams-neighborhood-flavors-308b41abfdef

Research Assistant, Smart Alarms Group, University of Pennsylvania   2009 – 2010
Conducted research with the Computer and Information Science Dept. on medical monitors and smart alarm algorithms to eliminate false alarms in hospital ICUs. Performed statistical analyses of medical data and collaborated closely with medical practitioners to design and program "smarter" monitors.

Policy Intern, The Reinvestment Fund   2009 – 2010
Conducted statistical analyses of economic development projects and their impact on the surrounding neighborhood. Worked primarily with geocoding geographical analyses to analyze spatial relationships in neighborhoods. Projects included the National Fresh Food Initiative, which examined access of low-income neighborhoods to supermarkets.

Teacher, West Philadelphia High School, Teach For America   2007 – 2009

Taught 5 classes including Physical Science, Algebra 1, and Algebra 2 at West Philadelphia High School, a public Title 1 neighborhood high school in Philadelphia, PA. Selected as the Science School Based Teacher Leader in October, 2007. Trained science teachers in integrating Web 2.0 and web-based simulations to the class.

Summer Urban Program Group Officer, Phillips Brooks House Association (PBHA)   2007
Oversaw, coordinated, and trained college-aged directors of 12 academic, affordable summer camps serving over 800 youth across Boston and Cambridge communities. Supported and trained directors through the processes of fundraising, managing peers, working with parents and community members, developing curriculum, managing classroom behavior, and more. Centrally oversaw the operations and budgets of all camps.

Director, Mission Hill Programs, PBHA   2005 – 2006
Planned and managed affordable summer camp for 80 students and an after-school program for 50 students in Mission Hill in Boston, MA. Raised a budget of $46,000. Organized field trips, curricula, and behavior management systems. Supervised staff of 8 college-aged Senior Counselors and 12 high-school-aged Junior Counselors in the summer, and 120 volunteers during the term. Class Coordinator: 2004 – 2005.

Director, Harvard Square Homeless Shelter, PBHA   2006 – 2007
Directed advocacy program at student-run homeless shelter for 24 guests. Worked as Case Worker for 3 long-term guests towards finding a consistent job and reliable housing. Supervised the shelter one night each week. Managed staff of 12 volunteers. Shift Supervisor: 2005-2006.

Publications

Alao, R., Bogen, M., Miao, J., Mironov, I., & **Tannen, J.** (2021) "How Meta is working to assess fairness in relation to race in the U.S. across its products and systems." https://ai.facebook.com/research/publications/how-meta-is-working-to-assess-fairness-in-relation-to-race-in-the-us-across-its-products-and-systems/

Kloumann, I. & **Tannen, J.** (2021) "How we're using Fairness Flow to build AI that works better for everyone." https://ai.facebook.com/blog/how-were-using-fairness-flow-to-help-build-ai-that-works-better-for-everyone/

Bakalar et al. (2021) "Fairness on the ground: Applying algorithmic fairness approaches to production systems." https://ai.facebook.com/research/publications/applying-algorithmic-fairness-approaches-to-production-systems/

Massey, D.S., & **Tannen, J.** (2016) "Segregation, Race, and the Social Worlds of Rich and Poor." In Braun, H., & Kirsch, I., eds., The Dynamics of Opportunity in America: Evidence and Perspectives. New York: Springer.

Massey, D.S., & **Tannen, J.** (2015). A Research Note on Trends in Black Hypersegregation. Demography, 1-10.

Espenshade, T.J. & **Tannen, J.** "Population Dynamics: Momentum of Population Growth." In International Encyclopedia of the Social & Behavioral Sciences (Second Edition), edited by James D. Wright, Elsevier, Oxford, 2015, 572-578.

King, A.L., Roederer, A., Arney, D., Chen, S., Fortino-Mullen, M., Giannareas, A., Hanson C.W., Kern, V., Stevens, N., **Tannen, J.**, Trevino, A.V., Park, S., Sokolsky, O., & Lee, I. (2010). "GSA: a framework for rapid prototyping of smart alarm systems." Proceedings of the 1st ACM International Health Informatics Symposium. Association for Computing Machinery.

Teaching Experience

Instructor, University of Penn. Weitzman School of Design, MUSA Capstone Course	Spring 2022
Instructor, University of Penn. Fels Institute, R for Data Science Workshop	Fall 2017
Preceptor, Princeton University, WWS 508a: Econometrics and Public Policy: Applications	Spring 2016
Preceptor, Princeton University, WWS 200: Statistics for Social Science	Spring 2016
Preceptor, Princeton University, MPP Math Camp	Summer 2013

Preceptor, Princeton University, WWS 508a: Econometrics and Public Policy: Applications   Spring 2013
Preceptor, Princeton University, SOC 504: Advanced Social Statistics   Spring 2013
Preceptor, Princeton University, WWS 332: Quantitative Analysis for Public Policy   Spring 2012
Teacher, West Philadelphia High School (Described Below)   2007-2009
Course Assistant, Harvard University, Math 21a: Multivariable Calculus   Fall 2004 & 2005

Interests: City-walking, crossword puzzles, running.