

## Stephen J Mooney

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Born: Oakland, CA, November 27, 1975.  
 Citizenship: USA

### Education

- 2010-present Columbia University, New York, NY  
 PhD, Epidemiology, Spring 2016 (Expected)  
 Dissertation: *The Impact of Built and Social Environment on Physical Activity among Older Adults*  
 MS, Epidemiology, 2012
- 1994-1998 Yale University, New Haven, CT  
 BS, Computer Science (with distinction), 1998

### Research Interests

**Built environment** determinants of **injury** and **physical activity**, spatial analysis, epidemiologic methods

### Employment

- 2010-2016 Columbia University, New York, NY  
 Course Instructor, Teaching Assistant and Research Assistant  
 Specialties: R Statistical Programming, Epidemiologic Methods
- 2008-2011 AdNectar, Inc, Palo Alto, CA  
 Software Developer
- 2004-2008 Pure Networks, Seattle, WA  
 Lead Developer
- 1998-2004 Microsoft Corporation, Redmond, WA  
 Software Developer

### Peer-Reviewed Publications (total: 15, first author: 9, ISI h-index:4)

- **Mooney SJ**, El-Sayed AM. Stigma and the Etiology of Depression among the Obese: Insights from an Agent-Based Social Network Model. *Social Science and Medicine*, In Press.  
<http://dx.doi.org/10.1016/j.socscimed.2015.11.020>
- **Mooney SJ**, DiMaggio CJ, Lovasi GS, Neckerman KM, Bader MDM, Teitler JO, Sheehan DM, Jack DW, Rundle AG. Using Google Street View to Assess Environmental Contributions to Pedestrian Injury. *American Journal of Public Health*, In Press <http://dx.doi.org/10.2105/AJPH.2015.302978>
- **Mooney SJ**, Grady ST, Sotoodehnia N, Lemaitre RN, Wallace ER, Mohanty AF, Yee J, Siscovick DS, Rea T, McKnight B, Kwok PY, Mak A, Hesselton S, Lovasi GS. In the Wrong Place with the Wrong SNP: Beta-2-Adrenergic Receptor Gene Modifies the Association between Stressful Neighborhood Conditions and Sudden Cardiac Arrest. *Epidemiology*, In Press
- Joshi S, **Mooney SJ**, Rundle AG, Kennedy GJ, Benjamin EO, Ompad DC, Beard J, Cerdá M. Beyond METs: Types of Physical Activity and Depression among Older Adults. *Age and Ageing*, In Press.

**Peer-Reviewed Publications (continued)**

- Maresca MM, Hoepner L, Hassoun A, Oberfield SE, **Mooney SJ**, Calafat AM, Ramirez J, Freyer G, Perera F, Whyatt R., Rundle A. Prenatal Exposure to Phthalates and Childhood Body Size in an Urban Cohort. *Environmental Health Perspectives*, In Press. <http://dx.doi.org/10.1289/ehp.1408750>. PMID: 26069025
- **Mooney SJ**, Joshi S, Cerdá M, Quinn JW, Beard J, Kennedy GJ, Benjamin EO, Ompad DC, Rundle AG. 2015. Patterns of Physical Activity among Older Adults in New York City: A Latent Class Approach. *American Journal of Preventive Medicine*. <http://dx.doi.org/10.1016/j.amepre.2015.02.015>. PMID: 26091927; PMCID: PMC4546879.
- Bader MDM, **Mooney SJ**, Lee YJ, Sheehan DM, Neckerman KM, Rundle AG, Teitler JO. 2015. Development of a Computer Assisted Neighborhood Visual Assessment System using Google Street View on a National Sample of Block Faces. *Health & Place*. <http://dx.doi.org/10.1016/j.healthplace.2014.10.012>. PMID: 25545769; PMCID: PMC4315325
- Quinn JW, **Mooney SJ**, Sheehan DM, Teitler JO, Neckerman KM, Kaufman TK, Lovasi GS, Bader MDM, Rundle AG. 2014. Neighborhood Physical Disorder in New York City. *The Journal of Maps*. <http://dx.doi.org/10.1080/17445647.2014.978910>. PMID Pending.
- **Mooney SJ**, Bader MDM, Lovasi GS, Neckerman KM, Teitler JO, Rundle AG. 2014. Validity of an Ecometrics of a Neighborhood Physical Disorder Measure Constructed by Virtual Street Audit. *American Journal of Epidemiology*. <http://dx.doi.org/10.1093/aje/kwu180/>. PMID: 25122584; PMCID: PMC4157697
- **Mooney SJ\***, Knox J, Morabia A. 2014. The Thompson-McFadden Commission and Joseph Goldberger: Contrasting 2 Historical Investigations of Pellagra in Cotton-Mill Villages in South Carolina. *American Journal of Epidemiology*. <http://dx.doi.org/10.1093/aje/kwu134>. PMID: 24966221; PMCID: PMC4108042
- **Mooney SJ**, Richards CA, Rundle AG. 2014. There Goes the Neighborhood Effect: Bias Due to Non-Differential Measurement Error in the Construction of Neighborhood Contextual Measures. *Epidemiology*. <http://dx.doi.org/10.1097/EDE.0000000000000113>. PMID: 24815303; PMCID: PMC4504192
- Winner M, **Mooney SJ**, Hershman DL, Feingold DL, Allendorf JD, Wright JD and Neugut, AI. 2013. Incidence and Predictors of Bowel Obstruction in Elderly Stage IV Colon Cancer Patients: A Population-Based Cohort Study. *JAMA Surgery*. <http://dx.doi.org/10.1001/jamasurg.2013.1>. PMID: 23740130; PMCID: PMC4507521
- Winner M, **Mooney SJ**, Hershman DL, Feingold DL, Allendorf JD, Wright JD and Neugut, AI. 2013. Management and Outcomes of Bowel Obstruction in Stage IV Colon Cancer Patients: a Population-Based Cohort Study. *Diseases of the Colon and Rectum*. <http://dx.doi.org/10.1097/DCR.0b013e318294ed6b>. PMID: 23739189; PMCID: PMC4507563
- **Mooney SJ**, Winner M, Hershman DL, Feingold DL, Allendorf JD, Wright JD and Neugut, AI. 2013. Bowel Obstruction in Elderly Ovarian Cancer Patients: A Population-Based Study. *Gynecologic Oncology*. <http://dx.doi.org/10.1016/j.ygyno.2012.12.028>. PMID: 23274561; PMCID: PMC3731031
- **Mooney SJ**, Baecker A, Rundle AG. 2013. Comparison of anthropometric and body composition measures as predictors of components of the metabolic syndrome in a clinical setting. *Obesity Research & Clinical Practice*. <http://dx.doi.org/10.1016/j.orcp.2012.10.004>. PMID: 24331682

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## Manuscripts Under Review

- **Mooney SJ**, Zulaika G, Sheehan DM, Rundle AG, McGill K, Behrooz MR, Lovasi, GS. Quantifying Error in Global Positioning System Readings in Urban Spaces. *Under Review*
- **Mooney SJ**, Bader MDM, Bartley KF, Lovasi GS, Neckerman KM, Teitler JO, Sheehan DM, Rundle AG. Neighborhood Disorder, Fear of Crime, and Physical Activity. *Under Review*
- Kim JH, **Mooney SJ\***. The Epidemiologic Principles Underlying Traffic Safety Study Designs. *Under Review*
- **Mooney SJ\***. Statistical Interaction without Sufficient Cause Interaction. *Under Review*
- DiMaggio CJ, **Mooney SJ**, Frangos S, Wall S Bayesian Spatial Analysis of the Association of Alcohol Outlets and Alcohol-Related Pedestrian / Bicyclist Injuries in New York City. *Under Review*

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## Editorials and Commentaries

- Bader MDM, **Mooney SJ**, Rundle AG, Protecting Personally Identifiable Information when Using Online Geographic Tools for Public Health Research. *American Journal of Public Health*, In Press
- **Mooney SJ\***, Westreich DJ, El-Sayed AM. 2015. Epidemiology in the Big Data Era. *Epidemiology* <http://dx.doi.org/10.1097/EDE.0000000000000274>. PMID: 25756221; PMCID: PMC4385465

\* Corresponding author

## Articles for a General Audience

- **Mooney SJ**. "Searching for the Cause of a Mysterious Epidemic" The 2x2 Project, August 20, 2014
- **Mooney SJ**. "Is BMI the Best We Can Do?" The 2x2 Project, December 26, 2012

## Awards

- Society for Epidemiologic Research Student Abstract Award, Second Prize, Mailman School of Public Health Department of Epidemiology, 2015
- **Donald Gemson Memorial Scholarship** for Epidemiology, 2014
- SERDigital Award Winner, Society for Epidemiologic Research, 2014
- Society for Epidemiologic Research First Prize Winner and Student Prize Winner, Poster Session 2, 2013
- Society for Epidemiologic Research Student Abstract Award, First Prize, Mailman School of Public Health Department of Epidemiology, 2013
- **Gelman Award for Excellence in Epidemiology**, Mailman School of Public Health, 2012
- Best Poster, Chronic Disease group, Mailman School of Public Health, 2011 Practicum Fair
- **National Merit Scholar**, 1994

**Invited Talks (total: 6)**

- The Built Environment and Physical Activity among Older Adults: Data- and Hypothesis-Driven Approaches (*Social Epidemiology Seminar at University of North Carolina, Chapel Hill*), 11/20/2015
- Big Data, Data Science, and Epidemiology (*Pfizer's Epidemiology Safety Group*), 9/16/2015
- The Built Environment and Physical Activity among Older Adults: Integrating Data Science with Hypothesis-Driven Approaches (*Mailman School of Public Health Cancer Seminar, Columbia University*), 2/20/2015
- Norms, Stigma, and Social Isolation in the Obese: An Agent-based Approach (web lecture to *Social Epidemiology Seminar at University of North Carolina, Chapel Hill*), 11/12/2014
- Using Google Street View for Pedestrian Injury Research (*Mailman School of Public Health Injury Epidemiology Cluster Seminar, Columbia University*), 10/16/2014
- Validity in Crowd-sourced Science: Perspectives from Public Health (*Socioeconomic Data and Application Center, Columbia University*), 6/13/2014

**Conference Presentations (total: 4)**

- Predestination of the Modifiable? Lifecourse approaches to Behavioral Epidemiology (Chaired session at *Society for Epidemiologic Research 2015*)
- Norms, Stigma, and Social Isolation in the Obese (*Society for Epidemiologic Research 2014*)
- Econometrics and Validity of a Neighborhood Physical Disorder Measure Constructed by Virtual Street Audit (*Society for Epidemiologic Research 2014*)
- Broken Windows by Way of Microsoft Windows: Econometrics and Validity of a Neighborhood Physical Disorder Measure Constructed by Virtual Street Audit (*SERdigital 2013*)

**US Patents (total: 8)**

- US Patent #8892993, *Translation File*. Issued November 18, 2014.
- US Patent #8316438, *Network management providing network health information and lockdown security*. Issued November 20, 2012
- US Patent #7739246, *System and Method of Merging Contacts*. Issued June 15, 2010.
- US Patent #7734577, *Composite User Interface and Framework*. Issued June 8, 2010.
- US Patent #7581177, *Conversion of Structured Documents*. Issued August 25, 2009.
- US Patent #7516145, *System and Method for Incrementally Transforming and Rendering Hierarchical Data Files*. Issued April 7, 2009
- US Patent #7406660, *Mapping Between Structured Data and a Visual Surface*. Issued July 29, 2008.
- US Patent #7191934, *Authoring Arbitrary Documents using DHTML and XSLT*. Issued March 13, 2007.

## Conference Posters (total: 11)

- Not All Who Wander Are Lost: Quantifying GPS Error for Studies of Physical Activity in Urban Spaces (*Society for Epidemiologic Research 2015*)
- Moving Beyond Self-Report: Neighborhood Disorder, Safety and Physical Activity (*Population Association of the Americas 2015*)
- Tools for Vision Zero: Using Information Technology to Assess Pedestrian Injury Risk (*New York Community Epidemiology Forum 2015*)
- To Match or Not to Match: Control Selection Strategies in Disease Biomarker Discovery Studies (*Society for Epidemiologic Research 2014*)
- To Match or Not to Match: Control Selection Strategies in Disease Biomarker Discovery Studies (*New York Community Epidemiology Forum 2014*)
- There Goes the Neighborhood Effect: Bias Due to Non-Differential Measurement Error in the Construction of Neighborhood Contextual Measures (*Society for Epidemiologic Research 2013*)
- Are We Overestimating Neighborhood Effects on Cancer Outcomes? (*American Society for Preventive Oncology 2013*)
- Aggregation of erroneous individual-level measures in neighborhood context studies (*Society for Epidemiologic Research Student Web Meeting 2012*)
- Bowel Obstruction in Advanced Colon Cancer Patients (*Society for Epidemiologic Research 2012*)
- Using Google Street View to Perform Neighborhood Audits (*International Society for Behavioral Nutrition and Physical Activity 2012*)

## Grants

- National Cancer Institute T32 training grant #CA09529, Trainee
- Columbia University Injury Center Pilot Grant, “*Pedestrian Environment Characteristics Associated with Pedestrian-Motor Vehicle Collisions in New York City*”, Co-PI with Andrew Rundle  
Total Funds: \$7,500
- Columbia University Injury Center Pilot Grant, “*Interactive Pedestrian Injury Mapper*”, Co-PI with Andrew Rundle  
Total Funds: \$10,000

## Professional Service

- Education Chair, Student-PostDoc Committee, Society for Epidemiologic Research
- Student Representative, Columbia University Epidemiology Department Curriculum Committee
- Ad Hoc Reviewer:  
*American Journal of Epidemiology*  
*Epidemiology*  
*Journal of Urban Health*  
*Public Health Nutrition*  
*Injury Epidemiology*

## Teaching Experience

- *Course Instructor*
  - “Applications of Epidemiologic Research Methods II”, Mailman School of Public Health, Spring 2015
- *Teaching Assistant (total: 9 courses)*
  - “Critical Thinking in Epidemiology”, Mailman School of Public Health, Fall 2015 (Andrew Rundle, Professor)
  - “Systems Science & Population Health”, Mailman School of Public Health, Spring 2015 (Abdulrahman El-Sayed, Professor)
  - “Critical Thinking in Epidemiology”, Mailman School of Public Health, Fall 2014 (Andrew Rundle, Professor)
  - “Environmental Epidemiology”, Mailman School of Public Health, Fall 2014 (Andrew Rundle, Professor)
  - “Applications of Epidemiologic Research Methods II”, Mailman School of Public Health, Spring 2014 (Charles DiMaggio, Professor)
  - “Critical Thinking in Epidemiology”, Mailman School of Public Health, Fall 2013 (Andrew Rundle, Professor)
  - “Environmental Epidemiology”, Mailman School of Public Health, Fall 2013 (Andrew Rundle, Professor)
  - “Applications of Epidemiologic Research Methods II”, Mailman School of Public Health, Spring 2013 (Charles DiMaggio, Professor)
  - “Cancer Epidemiology”, Mailman School of Public Health, Fall 2012. (Alfred Neugut, Professor)
- *Course Instructor for Week Long Summer Institute Class*
  - “Epidemiologic Analysis using R”, Summer 2015 (Co-Instructor: Charles DiMaggio)
  - “Agent-Based Modeling”, Summer 2015 (Co-Instructor: Abdulrahman El-Sayed)
  - “Epidemiologic Analysis using R”, Summer 2014
  - “Epidemiologic Analysis using R”, Summer 2013
- *Teaching Assistant for Week Long Summer Institute Class*
  - “Epidemiologic Analysis using R”, Summer 2012. (Dr. Charles DiMaggio, Professor)
- *Course Instructor for One-Day Workshop*
  - “Using R for Simulation”, Summer 2015 (Co-Instructor: Charles DiMaggio)
  - “Introduction to R using RStudio”, Society for Epidemiologic Research pre-conference, June 2014

## Teaching Experience (Continued)

- *Guest Lectures (total: 10)*

Introduction to Measurement Theory (University of North Carolina's, *Fundamentals of Epidemiology*, 11/2015)

- Using R for Data Visualization (Mailman School's *Data Visualization*, 7/2015)
- Measurement Error (Mailman School's *Environmental Epidemiology*, 11/2014)
- The Thompson-McFadden Commission, the Public Health Service, and Pellagra (Mailman School's *History of Epidemiology*, 10/2014)
- Spatial Analysis in R (Mailman School's *Application of Epidemiologic Research Methods II*, 4/2014)
- Graphics in R (Mailman School's *Application of Epidemiologic Research Methods II*, 3/2014)
- The Thompson-McFadden Commission, Joseph Goldberger, and Pellagra (Mailman School's *History of Epidemiology*, 10/2013)
- Big Data in R (Mailman School's *Application of Epidemiologic Research Methods II*, 5/2013)
- Using Google Street View and Spatial Analysis to Assess Neighborhood Conditions (Barnard College's *Geographic Information Systems*, 4/2013)
- Aggregation of erroneous individual-level measures in neighborhood context studies (City University of New York School of Public Health's *Introduction to Multi-level Modeling*, 1/2013)

- *Journal Clubs*

- Social Determinants of Health Master's Certificate Journal Club session leader:
  - October 2013
  - February 2014
  - September 2014
  - September 2015
- 'Pop-up' ad hoc Journal Club to discuss recent meta-knowledge and epidemiology paper , July 2015

## Technical Skills

- Statistical Programming: R, SAS, Spatial tools for R
- Data Management: MySQL, Hadoop
- General Programming: C/C++, Java, Ruby, Python, Javascript, PHP
- Application Frameworks: Win32/COM, Spring, Rails, Django, JQuery