

# Joshua G. Mausolf

## *Curriculum Vitae – 2015*



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### EDUCATION

University of Chicago	Ph.D. Student, Department of Sociology	2014-Present
New York University	B.A., <i>summa cum laude</i> , Sociology with High Honors <u>Honors Thesis</u> : “Environmental Hookups: The Effects of School Social Environment and the College Hookup Scene.” <i>Official selection</i> , best honors thesis by the New York University, Department of Sociology, nominated for the <i>Phi Beta Kappa – Albert Borgman Prize</i>	2010 – 2012
Northern Virginia Community College	A.A. <i>summa cum laude</i> , Liberal Arts	2007 – 2010

### PROFESSIONAL EXPERIENCE

University of Chicago, Chicago, IL	2015-Present
• Part Time Data Scientist, Knowledge Lab, Computation Institute	
New York University, New York, NY	2012-Present
• Research Assistant to Jeff Manza, Ph.D., Dept. of Sociology, 2012-Present	
• Research Assistant to Patrick Sharkey, Ph.D., Dept. of Sociology, 2012	
Thompson Creek, Lanham, MD	2009 – 2014
• Project Coordinator, 2012-2014	
• Marketing Agent, 2009-2012	
Teachers College – Columbia University, New York, NY	2011 – 2012
• Publishing Assistant: Acquisitions and Subsidiary Rights	

## RESEARCH ASSISTANT PROJECTS

**R.A. work for James Evans and Aaron Gerow, University of Chicago** 2015-Present

- Analyzed hypergraph network data using NetworkX in Python, visualized the network in Gephi, and developed dynamic web graphics with Javascript for a project analyzing the social networks of academics based on their CV's

**R.A. work for Jeff Manza, Dept. of Sociology, NYU** 2013-Present

- Ongoing research for a project on Occupy Wall Street, 2013-Present
- Conducted background research for the presentation, "A Broken Public? Americans' Responses to the Great Recession," presented at Harvard's Kennedy School, April 2012.

**R.A. work for Patrick Sharkey, Dept. of Sociology, NYU** 2012

- Coded historical, journalistic, and geophysical data to assist a future project examining the cognitive impact of psychological stressors on youth in Chicago Public Schools.

## CURRENT MANUSCRIPTS IN PREPARATION OR UNDER REVIEW

- 2015 Mausolf, Joshua G. "Occupy the White House: Analyzing Presidential Rhetoric and Responsiveness to Inequality during the Obama Presidency." (In preparation).
- 2015 Mausolf, Joshua G. "Sexual Privilege: The Effect of Private and Elite Campuses on the College Hookup Scene." (Manuscript).
- 2015 Manza, Jeff, Clem Brooks, and Joshua Mausolf. "The Impact of Occupy Wall Street." Ch. 5 in *A Broken Public? Inequality and Mass Opinion in the New Gilded Age* by Jeff Manza and Clem Brooks. (TBD).

## CONFERENCE PAPER PRESENTATIONS

- 2015 Mausolf, Joshua G. "Sexual Privilege: The Effect of Private and Elite Campuses on the College Hookup Scene." Presented at the *Annual Meeting of the American Sociological Association*, August 22, Chicago.
- 2015 Mausolf, Joshua G. "Sexual Privilege: The Effect of Private and Elite Campuses on the College Hookup Scene." Presented at the *Engendering Change* conference at the University of Chicago, April 11, Chicago.

## SELECTED SCHOLARLY PAPERS

- 2015 Mausolf, Joshua, Bridgit Donnelly, and Christine Cook. "Predicting Dropouts in Montgomery County Public Schools: A Machine Learning Approach to Educational Policy."
- 2012 Mausolf, Joshua G. "Occupy the Whitehouse: Presidential Politics and the Efficacy of the 99 Percent." (Review and Resubmit, *Mobilization*).
- 2012 Mausolf, Joshua G. "Environmental Hookups: School Social Environment and the College Hookup Scene."
- 2012 Mausolf, Joshua G. "Spatial Enslavement: Mass Incarceration and the Politics of Disadvantage."
- 2011 Mausolf, Joshua G. "Ethical Racism and the Obamaian Epoch: Evaluating White Racial Attitudes in a 'Post Racial' Society."

## RESEARCH PROPOSALS

- 2015 "Analyzing Presidential Rhetoric and Occupy Wall Street: A Computational Approach."
- 2014 "Mapping Network Effects on Self-Perceived Life Chances of College Freshmen."

## STATISTICAL AND COMPUTATIONAL EXPERTISE

**Statistical programs:** R, Stata, SPSS, Pandas, Numpy, Scikit-learn, SciPy, Excel

**Computing languages:** Python, SQL, Linux, Unix, JSON, HTML, CSS, Javascript, MySQL, PostgreSQL, Flask, Jeckel

**Text analytic programs:** NLTK, Beautiful Soup, Atlas.ti

**Graphical analytic programs:** Tableau, Gephi, NetworkX, VosViewer, R, Stata, SPSS, Matplotlib

## STATISTICAL METHODS INCLUDE:

- **Time-series/Econometric Models** (Autoregressive Fractionally-Integrated Moving Average (ARFIMA), Autoregressive Moving Average (ARMA), as well as OLS, 2SLS, IV, and Negative Binomial time-series models)
- **Longitudinal Models** (Mixed Effect Models (MRM) with and without auto-correlated errors for linear, binary, categorical, and multinomial data; Covariance Pattern Models (CPM); GEE models; and Multi-Level Models)
- **Maximum Likelihood Estimation** (Logit/Probit, Ordered Logit/Probit, Categorical Data Analysis, Multinomial, Negative Binomial, Poisson, Survival Analysis)

**STATISTICAL METHODS (CONTINUED):**

- **Linear Regression** (Ordinary Least Squares (OLS), 2-Stage Least Squares, Instrumental Variables (IV) Regression, Generalized Least Squares (GLS), and General Linear Models (GLM), Bayesian Linear Regression)
- **Dimensionality Reduction** (Principal Components Analysis (PCA), Exploratory Factor Analysis, Confirmatory Factor Analysis)
- **Graphical** (Time Series/Regression Plots of Model Predictions versus Observations, Margins Plots, Box Plots, Bar Charts, Histograms, Scatter Plots, Line Plots, Lowess/Lfit/Qfit Lines, and combinations of the above to produce clear and compelling visuals of complex data)
- **Other Analyses or Tests** (Bootstrapping, Bagging, Adjusting Analyses for Survey Sampling Weights, ANOVA, MANOVA MANCOVA, One/Two-Sample T-Tests, F-test, Chi<sup>2</sup> Test, Cohen's Kappa Test, A/B Testing, Bayesian Information Criterion (BIC), Akaike information criterion (AIC), and Least Log Likelihood, Likelihood Ratio Testing, Cronbach's Alpha, Regression Diagnostics to Assess Proper Model Fit and Specification)

**COMPUTATIONAL METHODS INCLUDE:**

- **Python** (Developing a variety of custom python applications such as machine learning pipelines, web scrapers, text analysis, data cleanup and preprocessing, regular expressions, statistical analysis and graphs, interfacing with other languages (SQL/Linux), and dynamic web development)
- **SQL** (MySQL, PostgreSQL, SQL for data storage and complex queries (both local and remotely))
- **Machine Learning** (Logistic Regression, Random Forest, Decision Trees, Boosting, Bagging, Gradient Boosting, Linear SVM, K-Nearest Neighbor, and using such techniques to develop modular python and bash packages and conduct analytic research)
- **Web Development** (HTML, CSS, Javascript, to design and customize web pages, developing and embedding dynamic Javascript/XML visual objects, building static webpages with Jeckel and dynamic webpages with Flask using a Python and SQL interface)
- **Data Mining and Web Scraping** (Building complex **Python** and **Linux** based web-scraping packages to navigate static or dynamic pages, pager/index count pages, or infinite scroll pages; parse specified data text or alternate data; and download and organize this data in a custom database, data frame, or file structure. Example: White House, Office of Press Secretary website)
- **API/JSON Queries** (Utilizing API queries within custom **Python** applications: Twitter API, Sunlight Foundation API)
- **Other** (Linux, Mac, and Windows command line, SSH protocol, version control with Git/Github, Regular Expressions, NLTK, Pandas, Numpy, Sci-kit-learn, Beautiful-Soup)

**DATASETS USED IN RESEARCH OR ANALYSIS INCLUDE:**

General Social Survey (GSS), American Community Survey (ACS), American National Election Survey (ANES), National Longitudinal Survey of Youth 1997 (NSLY97), Project on Human Development in Chicago Neighborhoods (PHDCN), National Immunization Survey (NIS), NORC Presidential Election Study, Online College Student Life Survey (OCSLS), Montgomery County Public Schools Survey, and Lakeside Neighborhood Survey (2015 PAPI)

## **SURVEY METHODOLOGY AND RESEARCH DESIGN**

- **Survey Weighting** (Calculation of base weights, unit non-response weights, item non-response weights, and post-stratification weights under a variety of survey implementations or combinations of simple random sampling, systematic sampling, PPS-sampling, stratified sampling, cluster-sampling, or multi-stage sampling using some combination thereof)
- **Survey Design and Optimization** (Designing the appropriate type of survey given a fixed budget or variance, desired sample size, expected response rate, and design factor to maximize results)
- **Questionnaire Design** (Design of appropriate survey questions, indexes, and scales that meet cognitive requirements under a variety of implementations such as web (CAWI), phone (CATI), in-person (CAPI), and mail; as well as critically analyzing these questionnaires using pre-testing and cognitive interviewing)
- **Other Research Design Competencies** (Experimental Design, A/B Tests, Focus Groups, Semi-Structured Interviewing, Unstructured Interviewing, Ethnographic Study)

## **LANGUAGES**

- English (native), French (proficient), Spanish (elementary)
- Python, Linux, Unix, Markdown, JSON, HTML, CSS, SQL, MySQL, PostgreSQL, R, Stata

### **Office Software Expertise:**

- **Microsoft Office Suite** (Word, PowerPoint, Access, Outlook, Excel)
- **Adobe Applications** (Acrobat Pro, Adobe Photoshop, Lightroom)
- **Google Applications** (Google Slides, Sheets, Documents, Gmail, Google Drive, Google Trends)
- Project management (SAP, CRM)
- Proficient in **Windows**, **Apple**, and **Linux** operating systems.

## **ASSOCIATIONS**

American Sociological Association  
National Society of Collegiate Scholars  
Phi Theta Kappa International Honor Society  
New York University Alumni Association

## HONORS, AWARDS, AND DISTINCTIONS

### University of Chicago

- Social Sciences Fellowship, 2014 – 2019

### New York University

- Graduation honors, *summa cum laude*, Sociology B.A. with High Honors
- Official selection, “Best Honors Thesis,” New York University, Department of Sociology, nominated for the *Phi Beta Kappa – Albert Borgman Prize*.
- Founders Day Award
- Dean’s List

### Northern Virginia Community College

- Graduation honors, *summa cum laude*
- Award of Academic Achievement in Mathematics
- NSCS Special Recognition for “Scholarship, Leadership, and Service”
- Presidential Scholar
- Dean’s List

## VOLUNTEER EXPERIENCE

Knights of Columbus, Burke, VA

- *Co-Chair Family Committee*

Dec. 2008 – 2014

July 2009 – June 2010

Christ House, Alexandria VA

Homeless Outreach Project – Team Lead, Washington DC

Housing Works, New York, NY

Food for the Poor – Haiti Mission Trip

March 2013

March 2013

Sept. 2010 – April 2012

June 2010

Student Government Association, Annandale, VA

- *Chair, Student Relations Committee*
- *Co-Chair Fundraising Committee*
- *Senator, Student Council*

Sept. 2009 – May 2010

Visual and Performing Arts Association, Annandale, VA

Fairfax County Public Library, Fairfax, VA

Habitat for Humanity, Alexandria, VA

Cornerstone Rescue Mission, Rapid City, SD

Sept. 2009 – May 2010

Dec. 2008

June – July 2008

June 2002 – June 2005