JOSHUA GARY MAUSOLF

Address: 1126 East 59th Street, 305
Chicago, IL 60637
Phone: 231-667-7017
Email: jmausolf@uchicago.edu
Web: jmausolf.github.io

EDUCATION

The University of Chicago
Ph.D. Student, Department of Sociology — expected June 2019
M.A., Sociology — expected June 2016

Special Fields: Survey Research Methods
Preliminary Exams: Stratification/Inequality, Political Sociology, Economic Sociology, Urban/Race, Sex and Gender, Family

New York University
B.A., *summa cum laude*, Sociology with High Honors — 2012
Thesis: "Environmental Hookups: School Social Environment and the College Hookup Scene" (Best Thesis, Departmental Honors)
Advisors: Richard Arum, Paula England, Ruth Horowitz, and Jeff Manza

Northern Virginia Community College
A.A. *summa cum laude,* Liberal Arts — 2010

PROFESSIONAL EXPERIENCE

The University of Chicago, Chicago, IL — 2015-Present
- Part Time Data Scientist, Knowledge Lab, Computation Institute
- Graduate Research Assistant to Kathleen Cagney, Dept. of Sociology
- Graduate Research Assistant to Jenny Trinitapoli, Dept. of Sociology

New York University, New York, NY — 2012-2013
- Research Assistant to Jeff Manza, Ph.D., Dept. of Sociology
- Research Assistant to Patrick Sharkey, Ph.D., Dept. of Sociology

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 EXPERIENCE

The University of Chicago

Graduate Research Assistant for Kathleen Cagney 2016-Present

- Performing research and analysis for a project examining the causal effect of crime on BMI and blood pressure using the Dallas Heart Study

Graduate Research Assistant for Jenny Trinitapoli 2016-Present

- Supervising a small team of undergraduate and graduate RA's in cleaning the Tsogolo la Thanzi (TLT) data, a longitudinal study of young people's fertility and reproduction in relation to the AIDS epidemic in Malawi.

Graduate Research Assistant for James Evans 2015-Present

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

New York University

Research Assistant for Jeff Manza 2012—2013

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

Research Assistant for Patrick Sharkey 2012

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

CONFERENCE PRESENTATIONS

2016 Mausolf, Joshua G. "Occupy the Government: Presidential and Congressional Rhetorical Response to the Occupy Movement." Presented at the *2nd Annual International Conference on Computational Social Science* at the Kellogg School of Management, Northwestern University, June 25, Evanston.

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.

GRANTS, AWARDS, AND FELLOWSHIPS

2016 The Eric and Wendy Schmidt Data Science for the Social Good Summer Fellowship ($14,000)

2014—2019 The University of Chicago, Social Science Fellowship 2014-2019 ($130,000)

HONORS AND DISTINCTIONS

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

CURRENT MANUSCRIPTS IN PREPARATION OR UNDER REVIEW

2016 Mausolf, Joshua G. "Occupy the Government: Analyzing Presidential and Congressional Rhetoric and Responsiveness to the Occupy Movement." (In preparation).

2016 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).

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**)**
- **Hierarchical Linear Models (HLM** for use with linear, binomial, and categorical nested, longitudinal, or cross-classified data)

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^2 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.

TEACHING

Spring 2016 Teaching Assistant, Statistical Methods of Research 2
(principal instructor: Xi Song)

ASSOCIATIONS

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