

# JOSHUA J FINK

joshua.fink@duke.edu  
(602) 882-3587

## RESUME 2015

### Profile

A data and social scientist interested in using modern Bayesian statistics and computational methods to study consumer behavior, sports, stratification processes, and the police and law enforcement.

### Education

#### Ph.D., Sociology

Duke University,  
Expected 2016

#### M.S., Statistical Science

Duke University,  
2015

#### B.A., Sociology

Pepperdine University,  
Cum Laude 2011

### Expertise

I specialize in building Bayesian statistical models for prediction and estimation using samplers based on Markov Chain Monte Carlo (MCMC) and other stochastic processes. I also have experience using a variety of clustering algorithms and managing large databases with tools such as Apache Spark. My preferred work-flow would involve R and Python for data cleaning and analysis, and R, Python, or D3.js for visualization. I am also proficient in git/github, Amazon Web Services, and the UNIX shell.

|         |                  |
|---------|------------------|
| R       | ●●●●●●●●●●●●●●●● |
| Stata   | ●●●●●●●●●●●●●●●● |
| Python  | ●●●●●●●●●●●●●●●● |
| Tableau | ●●●●●●●●●●●●●●●● |
| Spark   | ●●●●●●●●●●●●●●●● |
| D3.js   | ●●●●●●●●●●●●●●●● |
| SQL     | ●●●●●●●●●●●●●●●● |
| Hadoop  | ●●●●●●●●●●●●●●●● |
| C++     | ●●●●●●●●●●●●●●●● |
| SAS     | ●●●●●●●●●●●●●●●● |

### Selected Experience

#### American Statistical Association: Washington DC Law & Justice Statistics Research Assistant

February 2015-present

Keep track of ongoing research projects for the Law and Justice Committee of the American Statistical Association. Maintain databases and perform statistical analyses related to U.S. crime and policing.

#### Tastytrade & Dough: Chicago, IL Data Science Intern

August 2014-August 2015

Analyze high volume and velocity finance data, primarily the prices of financial derivatives. Create research segments to be aired on a financial news network featuring data visualizations and inferences.

#### National Institute of Health/Aging: Durham, NC Predoctoral Research Fellow

May 2013-August 2015

Execute quantitative research on the demography of health and aging. Perform regular presentations of research at conferences and weekly fellow meetings.

#### WZB, Social Science Center: Berlin, Germany Research Analyst

May 2013-August 2013

Clean, explore, and analyze cross-national data on immigration and law enforcement. Participate in science center discussion sessions and panels related to ongoing research projects of scientists at the Berlin center.

### Research

#### Age Structure and Neighborhood Homicide: A Test of the Differential Institutional Engagement Hypothesis

Dollar, Cindy, Patricia McCall, Kenneth Land, Joshua Fink **Journal of Quantitative Criminology, R&R**

#### Race and Consumption: The Role of Structural Constraints and Price in Household Expenditures

Charron-Chénier, Raphaël, Joshua Fink, Lisa A. Keister **Sociology of Race and Ethnicity, Under Review**

#### Class, Crime, and Latent Classes of Crime: A Bayesian Approach to a Persistent Enigma

Fink, Joshua

**Working Paper**

