

# Carson Sievert

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## Education

- Ph.D. in Statistics, Iowa State University (2016)
  - **Thesis:** Interfacing R with Web Technologies for Interactive Statistical Graphics and Computing with Data ([preprint](#))
- M.S. in Statistics, Iowa State University (2013)
  - **Thesis:** Tools for Collecting and Analyzing MLB PITCHf/x Data ([slides](#))
- Double B.A. in Mathematics & Economics, Saint John's University (2010)

## Experience

**Software Developer**, [plotly](#). May 2015 - Present

- Maintainer and lead developer of plotly's open-source R package. I also wrote an [online & interactive book](#) explaining the project.

**Research Assistant**, [Monash University](#). September 2015 - May 2016

- Advise honours student research and present workshops on data science in R.

**Lecturer/TA**, [Iowa State University](#). Aug. 2011 - May 2015

- Instructor for the online version of 'Intro to Business Statistics' (since Summer 2014).
- Course instructor for [Intro to Business Statistics](#). (Since Fall 2012)
- Teaching Assistant for [Statistical Methods for Research Workers](#). (Summer 2012)
- Grading supervisor for Intro to Business Statistics. (Fall 2011 & Spring 2012)

**Software Developer**, [Google Summer of Code](#). Summer 2014 & 2015

- Served as a student in summer 2014 and a mentor in summer 2015 for [animint](#); an R package for creating web-based interactive graphics and animations using ggplot2's grammar of graphics implementation.

**Research Intern**, [Statistics Research Department at AT&T Labs](#). Summer 2013

- Authored the R package [LDAvis](#) with [Kenny Shirley](#).

**Data Analyst**, [Hardwick-Day Inc.](#) Nov. 2010 - Nov. 2011

- Developed an algorithm for the company's web-based [Net Price Calculators](#) (projected to generate over \$3M in new revenue over five years).

## Publications

### Book Chapters

- Carson Sievert and Brian Mills (2017). "Using Publicly Available Baseball Data to Measure and Evaluate Pitching Performance" in [Handbook of Statistical Methods and Analyses in Sports](#), edited by Jim Albert, Mark E. Glickman, Tim B. Swartz, and Ruud H. Koning. Chapman & Hall/CRC. ISBN 9781498737364. ([preprint](#))

### Journal Articles

- Carson Sievert (2014). [Taming PITCHf/x Data with pitchRx and XML2R](#). *The R Journal*. 6(1).

## Workshop Papers

- Carson Sievert and Kenny Shirley (2014). [LDAvis: A Method for Visualizing and Interpreting Topics. Workshop on Interactive Language Learning, Visualization, and Interfaces at the Association for Computational Linguistics](#). Baltimore, Maryland, 2014.

## Manuscripts

- Carson Sievert (2016). [plotly for R](#).
- Carson Sievert (2016). [Interactive data visualization on the web using R](#).
- Carson Sievert, Toby Dylan Hocking, and Susan VanderPlas (2015). [Animint: A Grammar for Interactive Animations](#)

## Talks

All talks given in 2016 (and beyond) are listed here – <http://cpsievert.github.io/talks/>

## Invited

- Dynamic Interactive Web Graphics for Data Analysis ([slides](#)). Murdoch Childrens Research Institute. Melbourne, Australia. December, 2015
- Interactive and Dynamic Web-Based Statistical Graphics ([slides](#)). Walter and Eliza Hall Institute for Medical Research. Melbourne, Australia. September, 2015
- Acquiring, Visualizing, and Modeling MLB Umpire Strike/Ball Decisions with PITCHf/x Data ([slides](#)). Joint Statistical Meetings. Seattle, WA. August, 2015
- Recent Advances in Interactive Graphics for Data Analysis ([slides](#)). Joint Statistical Meetings. Seattle, WA. August, 2015
- Web Scraping in R ([slides](#)). Great Plain R Users Group, Sioux Falls, SD. June, 2015

## Selected

- [Reproducible web documents with R, knitr & Markdown](#), ISU Graphics Working Group ([slides](#)). November, 2013.
- LDAvis: A Method for Visualizing and Interpreting Topics ([slides](#)). Joint Statistical Meetings. Boston, Massachusetts. August, 2014.
- An interactive visualization platform for interpreting topic models ([slides](#) and [video](#)). ISU Graphics Working Group. August, 2013.
- pitchRx: Tools for Collecting and Analyzing Major League Baseball PITCHf/x Data ([slides](#)). Joint Statistical Meetings. Montreal, Canada. August, 2013.
- Play for Pay: the Effects of ‘Walk Year’ Performance on MLB Free Agent Contracts, Scholarship Day. St. Joseph, MN. 04/2010.
- A Mathematical Perspective of Voting, Pi Mu Epsilon’s National Conference at MathFest. Portland, OR. 08/2009.
- An Application of Auction Theory to the MLB Free Agent Market, with Zhishan Guo. Mathematical Association of America’s MathFest. Madison, WI. 08/2008.

## Honors/Awards

- 2017 [Chambers award](#) winner
- Invited participant of [2016 rOpenSci Unconference Australia](#).
- Awarded first place in the [2014 statistical graphics video competition](#) for [this submission](#).

- Invited participant of the [2014 rOpenSci hackathon](#) (see my [blog post](#))
- Invited member of the National Mathematics Honor Society - Pi Mu Epsilon
- Invited member of the Economics Honor Society - Omicron Kappa Sigma
- President's scholar and Dean's List recipient