

# Johannes Harkins

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[jmharkins.github.io](https://github.com/jmharkins)

## Technical Skills

- Currently using Python daily for data analysis. Proficient with many popular data science packages such as Pandas, Numpy, Matplotlib, and Scikit-Learn. I've also performed many of the same data analysis concepts in R.
- I've used D3.js (along with HTML, CSS, jQuery and other components of the DOM-oriented web framework) throughout several roles and personal projects to build static and interactive graphics and as a component of basic web applications
- Experience managing Data Science codebase in Git, specifically through the Atlassian suite of tools.
- Familiarity interacting with data in a number of data formats, from static XML, JSON and CSV to querying of SQL, as well as through the Hadoop DFS, web scraping, and interacting with APIs
- I have hands-on experience through various projects with Node, Angular, MongoDB, Apache Spark, and Scala

## Experience

- **Opta Sports (Perform Group)** New York, NY  
*Data Scientist* May 2015 - Present
  - Data Scientist directing a team dedicated to all analytical applications of Opta's industry-leading set of soccer data products, working across internal support and requests, as well as clients in professional football, media and commercial venues
  - Developing innovative metrics and approaches to soccer analytics used by top professional clubs worldwide
  - Responsible for taking data analysis from the theoretical and exploratory phases to products in the form of software tools and data feeds
  - Improved the structure of the Data Science team's code by restructuring old code according to coding best practices and putting the code of the Data Science team under version control for the first time
  - Developed internal tools including proprietary Python packages and separate graphical tools in D3 and R
  - Judged submissions for the 2016 and 2017 editions of the OptaPro Forum, a unique conference which represents the cutting-edge of football analytics work
  - Guest lectured for 2016 and 2017 offerings of the *Analytics of Global Sport* course at Columbia University's Sports Management program and judged the end-of-year case competition by participating students
- **First Insight Corporation** Hillsboro, OR  
*Jr. Software Engineer - Data Analytics* June 2014 - May 2015
  - Built framework for user-generated reports using FileMaker Pro and SQL
  - Developing a dashboarding UI using AngularJS and D3 for at-a-glance management statistics for client practices
- **Google** Remote  
*Project Analysis Contributor* June 2014 (Temporary)
  - Contributed to analysis and predictions for Google's 2014 World Cup prediction models
  - Used Google's BigQuery engine to pull relevant touch-by-touch soccer data from a database of several seasons worth of matches in order to determine model inputs
  - Contributed graphics to [related Google I/O presentation](#)
  - See Google's [related blog posts](#) for further explanation of the project

## Education

- **Reed College** Portland, OR  
*Bachelor of Arts, Mathematics & Economics* May 2014
  - Key Courses: Economics of Jobs, Technology and Trade; Macroeconomic Theory; Microeconomic Theory; Theory and Practice of Econometrics; Multivariable Calculus I & II; Programming Language Design and Implementation; Probability Theory; Environmental Politics and Policy; Linear Algebra; Algorithms and Data Structures
  - Thesis: *Testing the Efficiency of Sports Betting Markets*
  - Held organizing and leadership roles as Student Body Treasurer and Renn Fayre organizer that involved disbursement and budgeting of over \$100,000