

Jonathan Whitmore

PhD, Data Scientist

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Experience

- 2014– **Data Scientist**, *Silicon Valley Data Science*, Mountain View, CA, USA.
- Present
- Consulting as a member of several small data science/data engineering teams at multiple companies.
 - Creating output to explain data analysis, data visualization, and statistical modeling results to managers.
 - Modeling survey data responses with ordinal logistic regression in R.
 - Analyzing and visualizing user behavior migration.
- 2014 **Insight Fellow**, *Insight Data Science*, Palo Alto, CA, USA.
- Created a Data Science project to predict the auction sale price of Abstract Expressionist art.
- 2011–2014 **Postdoctoral Research Associate**, *Swinburne University*, Melbourne, AUS.
- Cleaned noisy and inhomogeneous astronomical data taken over four years by different observing groups.
 - Curated central data repository of final products; developed an automated process to update data repository; created web interface for collaborator access to the repository.
 - Utilized numerous statistical techniques, including sensitivity analysis on non-linear propagation of errors, Markov-Chain Monte Carlo for model building, and hypothesis testing via information criterion.
 - Simulated spectroscopic data to expose systematic errors that challenge long-standing results on whether the fundamental physical constants of the universe are constant.
- 2005–2011 **Graduate Student Researcher**, *UCSD*, San Diego, CA, USA.
- Developed a novel technique to extract information from high resolution spectroscopic data that led to uncovering unknown short-range systematic errors.

Programming and Development Skills

Languages Python, SQL (Impala/Hive), R, \LaTeX , shell scripts, CSS, HTML.

Tools Jupyter Notebook, pandas, matplotlib, numpy, scikit-learn, scipy, pymc3, git, pandoc.

Publishing, Speaking, and Side Projects

- 2016 O'Reilly author: [Jupyter Notebook for Data Science Teams](#) [screencast], editor O'Reilly Media.
- 2016 UC Berkeley Guest Lecturer: Master in Data Science lecture on Jupyter Notebook.
- 2015 Open Source Speaker: OSCON.
- 2014–2015 Technical reviewer of *Mastering SciPy* by Francisco J. Blanco-Silva, 2015.
- 2012–2014 Developer of [RebalanceAssetAllocation](#), a Python module that recommends financial asset class allocations.
- 2013–2014 Contributor to [astropy](#); creator of [dipole_error](#), an astronomy Python module.
- 2013 Co-star and narrator of [Hidden Universe](#), a 3D IMAX astronomy film playing worldwide.
- 2007–2009 Graduate Physics Courses Taken: Stochastic Methods, Computational Physics.

Education

- 2011 **PhD Physics**, *University of California San Diego*, San Diego, CA, USA.
- 2007 **MS Physics**, *University of California San Diego*, San Diego, CA, USA.
- 2005 **Bachelor of Science–Magna Cum Laude**, *Vanderbilt University*, Nashville, TN, USA.
Triple major: Physics (honors); Mathematics; Philosophy.