**Diego Ramallo**

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[Professional homepage](http://ramalldf.pythonanywhere.com/) [LinkedIn](https://www.linkedin.com/in/diegoramallo), [GitHub](https://github.com/ramalldf)

#### **Skills**

Scientific programming and data visualization: Python (IPython Notebook, Numpy/Scipy, Matplotlib, Pandas, SK-Image, SK-Learn, Flask), Matlab (Stats toolbox, Image Processing toolbox), R (RStudio, Caret, ggplot2), SQL (SQLite), Shell/Git (version control, GitHub)

Experimental design, data handling and acquisition, signal processing, statistical analysis

#### **Research Experience (**[**expanded**](http://ramalldf.pythonanywhere.com/resume)**)**

Graduate Research Assistant, Dunn Lab, Chemical Eng. Dept., Stanford University, 2008-2015

Developed genetically-encoded FRET sensors to measure mechanical forces at the molecular scale, and characterized sensors using imaging data

Optimization of imaging data acquisition parameters, automation of FRET image processing pipeline using Matlab and Python, statistical analysis to validate response of sensors

Authored two papers and presented work in scientific conferences; authored and awarded research grant proposal; guided two graduate students in experimental design of projects and led workshops in statistical analysis and Python for image processing; *References available upon request*

#### **Education**

**Ph.D.,** Biophysics, Stanford University, GPA: 3.18, autumn 2015

Dissertation: “A mechanical sensor to study the dynamics of non-muscle myosin II in vivo”

**B.S.,** Biology, minor in Chemistry, GPA: 3.3, James Madison University, spring 2007

#### **Additional Information**

**Coursera data science coursework**: Practical Machine Learning, Using Databases with Python, Python for Genomic Data Science, Data Manipulation at Scale: Systems and Alg.’s (in progress)

**Stanford School of Design Coursework**: Bridging the Technology/Customer Divide in Big Data, spring 2013; Design Thinking Bootcamp, autumn 2012; Management Fundamentals (School of Medicine), winter 2012 **Leadership:**Guided launch of two research labs and imaging data pipeline, co-founded two student organizations and led several others; led scientific workshops in Python and Shell **Side projects:** Launched homepage with Flask and Bootstrap and developed a sample Kaggle data science project: predicting ‘excessive’ San Francisco public worker salaries with logistic regression and random forest models **Languages:** Fluent in English and Spanish, elementary proficiency in French **Hobbies:** NBA basketball, photography, design-thinking, salsa dancing, surfing