

K. Jarrod Millman

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EDUCATION

University of California, Berkeley *2012–present*
PhD student in Biostatistics
MA in Biostatistics (May 2015)
Thesis title: “permute—a Python package for permutation tests and confidence sets”
Thesis committee: Sandrine Dudoit (Chair), Philip B. Stark, Nicholas P. Jewell

Cornell University *1995–1998*
BA in Mathematics and Computer Science (cum laude)
Minor in Cognitive Studies

Deep Springs College *1993–1995*

WORK HISTORY

University of California, Berkeley, Berkeley, CA
Scientific Programmer, *Brain Imaging Center* *2010–2012*
Director of Computing, *Neuroscience Institute* *2004–2010*
System Administrator, *Brain Imaging Center* *2000–2004*

University of California, Davis, Davis, CA
Scientific Programmer, *Center for Neuroscience* *1998–2000*

Cornell University, Ithaca, NY
Research Assistant, *Psychology Department* *1996–1998*

Deep Springs College, Deep Springs, CA
Research Assistant, *Physiology Laboratory* *1994–1995*

TEACHING EXPERIENCE

University of California, Berkeley
Statistics 222, *Masters of Statistics Capstone Project* *Spring 2016*
Statistics 159/259, *Reproducible and Collaborative Statistical Data Science* *Fall 2015*
Statistics 133, *Concepts in Computing with Data* *Summer 2014*

AWARDS AND SCHOLARSHIPS

Barry Goldwater Scholarship for Mathematics and Science *1995–1997*
Telluride Association Scholarship *1995–1997*
H. N. and Francis C. Berger Scholarship *1993–1995*

PROFESSIONAL SERVICE

Editorial
Review Editor, *Frontiers in Neuroinformatics* *2011–present*
Guest Editor, *Computing in Science and Engineering* *2011*
Review Editor, *Open Research Computation* *2010–2012*

Review Editor, <i>Frontiers in Neuroscience Methods</i>	2010–2011
Proceedings Editor, SciPy Conference	2008–2013
Committee	
Neuroimaging Task Force, International Neuroinformatics Coordinating Facility	2010
Information Technology Architecture Committee, University of California, Berkeley	2007–2010
Campus Information Security and Privacy Committee, University of California, Berkeley	2006–2010
Calnet Technical Team, University of California, Berkeley	2005–2009
Conference	
Program Committee, EuroSciPy	2010–2011
Program Committee, Educause Security Professionals Conference	2010
Organizer, Open Research Computing in Python	2010
Chair, SciPy India	2009–2012
Chair, SciPy	2008–2011
Program Committee, Secure IT Conference	2007–2009
Software	
Board of Directors, NumFOCUS	2011–2015
Steering Committee, SciPy Development Team	2008–2011
Release Manager, Scientific Tools for Python (scipy.org)	2007–2009
Mentor, Google Summer of Code, Python Software Foundation	2007–2009

PRESENTATIONS

National

- Teaching statistical computing to undergraduates. *Mini-symposium at the SIAM Conference on Computational Science and Engineering entitled ‘Teaching Computational Thinking and Practice’*, Salt Lake City, UT, March 2015.
- Neuroimaging in Python (NiPy) architecture. *Half-day course at the 19th Annual Meeting of the Organization for Human Brain Mapping entitled ‘Neuroimaging Big Data Challenges and Computational Workflow Solutions’*, Seattle, WA, June 2013.
- Reproducibility and computationally intensive, data-driven research. *Mini-symposium at the SIAM Conference on Computational Science and Engineering entitled ‘Reproducibility and Computationally Intensive, Data-driven Research’*, Boston, MA, February 2013.
- The challenge of reproducible research in the computer age. *Mini-symposium at the SIAM Conference on Computational Science and Engineering entitled ‘Verifiable, reproducible research and computational science’*, Reno, NV, March 2011.
- A foundation for mathematical and scientific computing. *9th annual Python in Science Conference*, Austin, TX, June 2010.
- Codes, keys, and trap doors: Cryptography and the practice of hiding information. *Secure Information Technology Conference for Information Technology and Network Security*, San Diego, CA, March 2008.
- Ensuring Security policy compliance by automating system configuration. *EDUCAUSE Security Professionals Conference*, Denver, CO, April 2007.
- Mandatory access control and the principle of least privilege. *Secure Information Technology Conference for Information Technology and Network Security*, Sacramento, CA, March 2007.
- Automating security policy implementation. *Secure Information Technology Conference for Information Technology and Network Security*, Anaheim, CA, March 2006.

- fMRI study management and analysis at UC Berkeley. *National fMRI Data Center Meeting*, Dartmouth College, Hanover, NH, January 2006.
- Running a secure Fedora Linux machine. *Information Technology Security Symposium*, University of California, Davis, Davis, CA, June 2005.
- High speed networking for functional MRI. *Corporation for Education Network Initiatives in California Conference*, San Diego, CA, May 2002.

International

- Python for Statisticians. *SciPy India Conference*, Indian Institute of Technology Bombay, Mumbai, Maharashtra, India, December 2015.
- The challenge of reproducible research in the computer age. *Workshop at the Applied Mathematics Perspective meeting entitled ‘Reproducible Research: Tools and Strategies for Scientific Computing’*, University of British Columbia, Vancouver, British Columbia, Canada, July 2011.
- Experimental data and scientific computing. *SciPy India Conference*, International Institute of Information Technology, Hyderabad, Andhra Pradesh, India, December 2010.
- A foundation for mathematical and scientific computing. *SciPy Europe*, École Normale Supérieure, Paris, France, July 2010.
- The SciPy web and documentation tools. *SciPy India Conference*, Technopark, Thiruvananthapuram, Kerala, India, December 2009.

PUBLICATIONS

Refereed journal articles

- [1] S. Ghosh, A. Klein, B. Avants, and **K. J. Millman**. Learning from open source software projects to improve scientific review. *Frontiers in Computational Neuroscience*, 6(18), 2012.
- [2] J. L. Teeters, K. D. Harris, **K. J. Millman**, B. A. Olshausen, and F. T. Sommer. Data sharing for computational neuroscience. *Neuroinformatics*, 6(1):47–55, 2008.
- [3] **K. J. Millman** and M. Brett. Analysis of Functional Magnetic Resonance Imaging in Python. *Computing in Science & Engineering*, 9(3):52–55, 2007.

Refereed book chapters and conference proceedings

- [1] **K. J. Millman** and F. Pérez. Developing open source scientific practice. In V. Stodden, F. Leisch, and R. D. Peng, editors, *Implementing Reproducible Research*, pages 149–183. Chapman and Hall/CRC, 2014.
- [2] **K. J. Millman** and T. Vaught. The state of SciPy. In G. Varoquaux, T. Vaught, and K. J. Millman, editors, *Proceedings of the 7th Python in Science Conference*, pages 5–10, Pasadena, CA USA, 2008.
- [3] **K. J. Millman** and M. D’Esposito. Data and analysis management for Functional Magnetic Resonance Imaging studies. In *Proceedings of the International Advanced Database Conference*, pages 24–28, San Diego, CA USA, 2006.
- [4] B. A. Olshausen and **K. J. Millman**. Learning sparse codes with a mixture-of-Gaussians prior. *Advances in neural information processing systems*, 12:841–847, 2000.

Editorial articles

- [1] C. Neylon, J. Aerts, C. T. Brown, S. J. Coles, L. Hatton, D. Lemire, **K. J. Millman**, P. Murray-Rust, F. Pérez, N. Saunders, N. Shah, A. Smith, G. Varoquaux, and E. Willighagen. Changing computational research. the challenges ahead. *Source Code for Biology and Medicine*, 7(1):2, 2012.
- [2] **K. J. Millman** and M. Aivazis. Python for scientists and engineers. *Computing in Science & Engineering*, 13(2):9–12, 2011.