

Dillon Niederhut PhD

Data Science | Semantics

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Education

- 2016 **PhD**, *University of California, Berkeley, Anthropology.*
Performance Theory Approaches to Computational Text Analysis
- 2009 **BS**, *The College of William and Mary, Williamsburg, Neuroscience.*
Summa Cum Laude with additional Honors in Research

Experience

- 2016–2019 **Python Developer / Technical Instructor**, *Enthought*, Austin.
- 2015–2016 **Lead Python Developer / Statistical Consultant**, *D-Lab*, Berkeley.
- 2015 **Lecturer**, *University of California*, Berkeley.
- 2014 **Data Science Fellow**, *CDIPS*, Berkeley.
- 2011–2014 **NSF Graduate Research Fellow**, *University of California*, Berkeley.
- 2010–2011 **Statistical Consultant**, *Wolf Brown, LLC*, San Francisco.

Funding

- 2015 **GPU applications in post-mortem neuroimaging**, *Hardware Donation Program*, NVIDIA.
- 2014–2015 **MRI microscopy of human motor neurons**, *Research Grant*, Leakey Foundation.
- 2014–2016 **MRI microscopy of human motor neurons**, *Research Grant*, National High Magnetic Field Lab.
- 2011–2014 **Neurological correlates of language ability**, *Graduate Research Fellowship*, National Science Foundation.
#DGE1106400

Products

Applications

wirepedia Passive information extraction

wirepedia.org

Libraries

niacin Data enrichment and negative sampling
george-lucas Watch "A New Hope" in your terminal
tram Python objects with transactional memory
diff2parse DWI-based cortical parcellation
PyTeX \LaTeX to json transpiler

pypi.org/project/niacin/
pypi.org/project/george-lucas/
github.com/deniederhut/tram
github.com/deniederhut/diff2parse
github.com/deniederhut/PyTeX

Redicorpus	Real-time corpus building and querying	github.com/deniederhut/redicorpus
	Data	
MODIS (2km) cloudless composite	Cloudless global surface reflectance from 2017	zenodo.org/record/1287840
Primate energetics	Daily energy use of 26 genera of primates	zenodo.org/record/33599

Activities

- 2017-2019 **Proceedings Co-chair**, *Python in Science Conferences (SciPy)*.
- 2017-2019 **Contributor**, *Pandas*.
- 2017-2019 **Reviewer**, *The Journal of Open Source Software (JOSS)*.
- 2016-2019 **Reviewer**, *rOpenSci*.
- 2014-2018 **Reviewer**, *Evolution of Language International Conferences (EvoLang)*.

Proficiencies

- NLP CoreNLP, spaCy, NLTK, WordNet
- Python Airflow, Cython, Flask, Keras, NumPy, Pandas, scikit-image, scikit-learn, SQLAlchemy
- R Amelia, Knitr, MASS, Robust, Tidyverse
- DB Kafka, MongoDB, Neo4j, PostgreSQL, RabbitMQ
- FSL GLM, FDT, TBSS

Articles

D. Niederhut. Semantic bleaching not observed in synchronic test. In C. Cuskley, M. Flaherty, H. Little, L. McCrohon, A. Ravignani, and T. Verhoef, editors, *The Evolution of Language: Proceedings of the 12th International Conference*. NCU Press, 2018. <https://doi.org/10.12775/3991-1.082>.

Dillon Niederhut. Safe handling instructions for missing data. In Fatih Akici, David Lippa, Dillon Niederhut, and M. Pacer, editors, *Proceedings of the 17th Python in Science Conference*, pages 56 – 60, 2018. <https://doi.org/10.25080/Majora-4af1f417-008>.

D. Niederhut. Software transactional memory in pure python. In K. Huff, D. Lippa, D. Niederhut, and M. Pacer, editors, *Proceedings of the 16th Python in Science Conference*, pages 9–11, 2017. <https://doi.org/10.25080/shinma-7f4c6e7-002>.

D. Niederhut. Quantifying the semantic value of words. In S. Roberts, C. Clusky, L. McCrohon, L. Barcelo-Coblijn, O. Feher, and T. Verhoef, editors, *The Evolution of Language: Proceedings of the 11th international conference*. World Scientific, Hackensack, 2016.

D. Niederhut. The phonatory culture hypothesis. In E. Cartmill, S. Roberts, H. Lyn, and H. Cornish, editors, *The Evolution of Language: Proceedings of the 10th international conference*. World Scientific, Hackensack, 2014.

D. Niederhut. Beyond "neuroevidence". In L. McCrohon, T. Verhoef, B. Thompson, and H. Yamauchi, editors, *The Past, Present, and Future of Evolution of Language Research*. World Scientific, Hackensack, 2014.

D. Niederhut. Gesture and the origin of language. In T. Scott-Phillips, M. Tamariz, E. Cartmill, and J. Hurford, editors, *The Evolution of Language: Proceedings of the 9th international conference*. World Scientific, Hackensack, 2012.