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|  | William Michael Landau |
| **Education**  **Research**  **Employment**  **Leadership**  **Skills**  **References** | 201-563-4325 [landau@iastate.edu](mailto:landau@iastate.edu)  3211 Snedecor Hall <http://will-landau.com/>  Iowa State University <http://github.com/wlandau/>  Ames, IA 50011  PhD, Statistics, Iowa State University Expected May 2016  MS, Statistics, Iowa State University May 2013  BS, Mathematics, University of Chicago June 2011  **Publications**   * Niemi, Jarad and Mittman, Eric and **Landau, Will** and Nettleton, Dan Empirical Bayes Analysis of RNA-seq Data for Detection of Gene Expression Heterosis. *Journal of Agricultural, Biological, and Environmental Statistics*, (1-15), 2015. * **Landau, W. M.** and Liu, P. [Dispersion Estimation and Its Effect on Test Performance in RNA-seq Data Analysis: A Simulation-Based Comparison of Methods](http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081415). PLOS One, 8 (12): (December), 2013. * Ratliff, B. J. and Womack. C. C. and Tang, X. N. and **Landau, W. M.** and Butler, L. J. and Szpunar, D. E. Modeling the Rovibrationally Excited C2H4OH Radicals from the Photodissociation of 2-Bromoethanol at 193 nm. *Journal of Physical Chemistry*, 114 (14): (4934-45), (April), 2010.   **Posters**   * **Landau, W. M.** and Niemi, Jarad. [A Fully Bayesian Hierarchical Modeling Strategy for Identifying Gene Expression Heterosis using Parallel Computing with Graphics Processing Units (GPUs)](http://will-landau.com/research/ksu2015.pdf). Conference on Applied Statistics in Agriculture, Kansas State University, 2015. (Similar poster presented at the Joint Statistical Meetings in Boston, MA in 2014.) * **Landau, W. M.** and Liu, P[. Dispersion Estimation and its Effect on Test Performance in RNA-Seq Data Analysis](http://will-landau.com/research/jsm2013.pdf). Joint Statistical Meetings, 2013. Montreal, QC, Canada.   **Research Assistant[[1]](#footnote-1)++ June 2013 - present**   * Jointly developed a fully Bayesian method to detect important genes in high-dimensional genomic datasets. * Authored an R package with a [CUDA](http://blogs.nvidia.com/blog/2012/09/10/what-is-cuda-2/) backend for massively parallel computation. * NIH grant R01GM109458   **Research Assistant++ August 2013 – December 2013**  **GPU Computing Seminar Series August 2012 – December 2012**   * Authored and presented a high-performance computing seminar series at <http://will-landau.com/gpu/>, also on [YouTube](https://www.youtube.com/watch?v=VL3qbqA_Xco&list=PLs5XGFlsJ8Wi635Ig2QX3dbmJCNpss4aT).   **Course Instructor++ January 2013 – May 2013**  **STAT 305: Engineering Statistics January 2012 – May 2012**  **Teaching Assistant++ August 2011 – December 2011**  **STAT 231: Engineering Probability**  **STAT 105: Introduction to Engineering Statistics**  **Creator and Organizer++ September 2015 – Present**  **Cloud Computing Working Group**   * Presented and coordinated tutorial seminars on cloud computing services and on-campus computing clusters.   **Computation Advisory Committee++ September 2015 – Present**  **Volunteer Instructor[[2]](#footnote-2)+ March 13, 2014**  **Office of Precollegiate Programs for Talented and Gifted (OPPTAG)**   * Taught probability concepts to middle school students using an in-class game.   **Preparing Future Faculty Fellow+ August 2013 – June 2014**  **Boxing Club Assistant Coach+ August 2012 – December 2013**  **Data science**   * Hierarchical models, Bayesian methods, Markov chain Monte Carlo, high-dimensional data analysis, linear and nonlinear models, data mining, machine learning, predictive modeling, multivariate analysis, statistical computing, exploratory analysis, visualization, genomics data analysis   **Computing**   * R, R package development, Rcpp, C/C++, CUDA C/C++, shell scripting, Python, JavaScript, SAS, SQL, AWK, Haskell, Fortran   **Markup**   * R Markdown, Markdown, ioslides, knitr, LaTeX, HTML, CSS   [**Jarad Niemi**](http://www.jarad.me/) [niemi@iastate.edu](mailto:niemi@iastate.edu)   * PhD major professor   [**Peng Liu**](http://www.public.iastate.edu/~pliu/) [pliu@iastate.edu](mailto:pliu@iastate.edu)   * MS major professor   Additional references available on request. |

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