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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. PLOS One, 8 (12): (December), 2013.](http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0081415) * 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.](http://will-landau.com/research/ksu2015.pdf" \t "_blank)** [and Niemi, Jarad. A Fully Bayesian Hierarchical Modeling Strategy for Identifying Gene Expression Heterosis using Parallel Computing with Graphics Processing Units (GPUs). Conference on Applied Statistics in Agriculture, Kansas State University, 2015. (Similar poster presented at the Joint Statistical Meetings in Boston, MA in 2014.)](http://will-landau.com/research/ksu2015.pdf" \t "_blank) * **[Landau, W. M.](http://will-landau.com/research/jsm2013.pdf" \t "_blank)** [and Liu, P. Dispersion Estimation and its Effect on Test Performance in RNA-Seq Data Analysis. Joint Statistical Meetings, 2013. Montreal, QC, Canada.](http://will-landau.com/research/jsm2013.pdf" \t "_blank)   **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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