

# William Michael Landau

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<http://www.will-landau.com/>  
<http://github.com/wlandau/>

## Education

PhD, Statistics

Expected May 2016

- Iowa State University, Ames, IA

MS, Statistics

May 2013

- Iowa State University, Ames, IA
- Creative component: **W. M. Landau** and P. Liu. 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.

BS, Statistics

June 2011

- University of Chicago, Chicago, IL

## Articles

- **W. M. Landau** and P. Liu. 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.
- B. J. Ratliff, Womack. C. C., X. N. Tang, **W. M. Landau**, L. J. Butler, and D. E. Szpunar. Modeling the Rovibrationally Excited C<sub>2</sub>H<sub>4</sub>OH Radicals from the Photodissociation of 2-Bromoethanol at 193nm. *Journal of Physical Chemistry*, 114(14): 493445, April 2010.

## Posters

- **W. M. Landau** and J. Niemi. 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.)
- **W. M. Landau** and P. Liu. Dispersion Estimation and its Effect on Test Performance in RNA-seq Data Analysis. Joint Statistical Meetings, 2013. Montreal, QC, Canada.

## Employment

Research Assistant  
Iowa State University Department of Statistics

June 2013 – present

- Developing a fully Bayesian approach for detecting important genes in high-dimensional genomic datasets.
- Implementing with high-performance parallel computing using CUDA graphics processing units.
- NIH grant number R01GM109458.

Research Assistant  
GPU Computing Seminar Series  
Iowa State University Department of Statistics

August 2013 – December 2013

August 2012 – December 2012

Planned and delivered a high-performance computing seminar series publicly accessible at <http://will-landau.com/gpu/>.

Course Instructor  
STAT 305: Engineering Statistics  
Iowa State University Department of Statistics

January 2013 – May 2013

Teaching Assistant  
STAT 231: Engineering Probability  
STAT 105: Introduction to Engineering Statistics  
Iowa State University Department of Statistics

August 2011 – December 2011

## Leadership

Founder and organizer  
Cloud Computing Working Group  
Iowa State University Department of Statistics

September 2015 – Present

- Delivered and scheduled talks introducing graduate students and faculty to cloud computing with Amazon Web Services.

Preparing Future Faculty Fellow  
Preparing Future Faculty Program

August 2013 – June 2014

- Completed supplemental courses and workshops in teaching.

Volunteer Instructor  
Investigation Series  
Office of Precollegiate Programs for Talented and Gifted (OPPTAG)

March 13, 2014

- Created and led an educational game simulating the Monty Hall problem for middle school students in the community of Ames, IA.

- Led and jointly planned a beginner boxing course for roughly 70 participants.
- Individually coached beginner and competitive college boxers.

## Computer Languages

### Programming

- Significant experience with R, C/C++, CUDA C/C++, and shell scripting.
- Some experience with Python, SAS, SQL, AWK, Haskell, JavaScript, and Fortran.

### Markup

- Significant experience with LaTeX, Markdown, R Markdown, knitr, HTML, and CSS.
- Some experience with XML.

## References

Jarad Niemi  
Assistant Professor

- PhD major professor at Iowa State University.
- [niemi@iastate.edu](mailto:niemi@iastate.edu)

Peng Liu  
Associate Professor

- MS major professor at Iowa State University.
- [pliu@iastate.edu](mailto:pliu@iastate.edu)
- 515-294-7806

Additional references available on request