

# William Michael Landau

## Office

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## Web

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

## Education

Master of Science, Statistics, May 2013  
Iowa State University, Ames, IA  
Cumulative GPA: 3.90/4.00

Bachelor of Science, Mathematics, June 2011  
University of Chicago, Chicago, IL  
Cumulative GPA: 3.69/4.00

PhD, Statistics, expected May 2016  
Iowa State University, Ames, IA  
Cumulative GPA: 3.87/4.00

## Research

Research Assistant	RNA-seq Research Group Dept. of Statistics Iowa State University	Jun 2010 – Sep 2010
	Implemented a GPU-accelerated Markov Chain Monte Carlo procedure to fit a hierarchical model to RNA-seq datasets. The goal was to detect differentially expressed genes and hybrid vigor in gene expression.	
Research Assistant	The Eric Schwartz Group Dept. of Pharm. and Phys. Sci. University of Chicago	Jun 2010 – Sep 2010
	Investigated the kinetics of synaptic vesicle transmission using hidden Markov models.	
Research Fellow	REU VIGRE Dept. of Mathematics University of Chicago	Jun 2009 – Aug 2009
	The REU VIGRE is an undergraduate summer research program. Independent study of Algebraic Topology. Wrote an expository paper on a topic in Algebraic Topology.	
Research Assistant	The Laurie Butler Group Dept. of Chemistry University of Chicago	Jun 2008 – Jun 2009
	Jointly wrote a chemical reaction dynamics paper (see Publications). Wrote software to process and analyze data raw experimental data.	

## Teaching

Lecturer	GPU Computing Subgroup	Aug 2013 – Dec 2013
	Statistical Computing Research Group	Aug 2012 – Dec 2012
	Dept. of Statistics	
	Iowa State University	
	<p>Created and delivered weekly talks on statistical computing with Graphics Processing Units (GPUs) to graduate students and faculty.</p> <p>Materials are available at <a href="http://will-landau.com/gpu">http://will-landau.com/gpu</a>.</p>	
Course Instructor	STAT 305: Engineering Statistics	Jan 2013 – Dec 2013
	Dept. of Statistics	Jan 2012 – Dec 2012
	Iowa State University	
	<p>Planned and delivered bi-weekly lectures to classes of sixty students.</p> <p>Wrote homework and exams, graded exams, held weekly office hours.</p>	
Teaching Assistant	STAT 231: Engineering Probability	Aug 2011 – Dec 2011
	STAT 105: Intro to Engineering Statistics	
	Dept. of Statistics	
	Iowa State University	
	<p>Wrote solution sets for STAT 231 homework assignments.</p> <p>Graded homework.</p> <p>Held weekly office hours.</p>	
Teaching Assistant	SESAME Program	Jun 2009 – Aug 2009
	Dept. of Mathematics	
	University of Chicago	
	<p>Led problem sessions in Methods of Teaching Mathematics Grades 6-8.</p> <p>Lab TA for a computer science course in Java and Number Theory.</p> <p>SESAME is a teaching certification program for Chicago public school teachers.</p>	
Tutor	Asociacion Civil Puririsun	
	Cusco, Peru	
	<p>Tutored children ages four to seventeen in a rural community near Cusco.</p>	

## Leadership

Preparing Future Faculty Program	Iowa State University	Aug 2013 – Present
	<p>Attended courses that offer supplemental training in research, teaching, service, and applying for academic positions.</p> <p>More information at <a href="http://www.celt.iastate.edu/pff/">http://www.celt.iastate.edu/pff/</a>.</p>	
Assistant Boxing Coach	Iowa State University Boxing Club	Aug 2012 – Dec 2013
	<p>Led and jointly planned beginner college boxing classes of roughly 70 participants.</p> <p>Individually coached beginner and competitive boxers.</p> <p>Created a system for maintaining the membership roster and finances.</p>	

Junior Firefighter Captain	Volunteer Junior Fire Dept. Mountain Lakes, NJ	Sep 2006 - Jun 2007
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Jointly coordinated operations at fire calls  
 Jointly planned and conducted bimonthly drills.  
 Jointly organized community fundraising events

## Honors

Vince Sposito Computing Excellence Award	Dept. of Statistics Iowa State University	Aug 2013
Awarded for service in statistical computing while working toward a graduate degree.		
GSK Scholar Award	Dept. of Statistics Iowa State University	Sep 2011
Awarded jointly by GlaxoSmithKline and the Iowa State University Department of Statistics for a strong undergraduate record and an interest in biostatistics.		
Alummni Scholarship	Dept. of Statistics Iowa State University	Sep 2011
Awarded for a strong application for graduate study.		
Dean's List	University of Chicago	Sep 2007 – Jun 2011
Awarded for maintaining an annual grade point average above 3.25.		

## Publications

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 193 nm. *Journal of Physical Chemistry*, 114(14):4934–45, April 2010.

## Skills

Programming	R, C/C++, CUDA C, Bash, Python. Experience with Javascript, SAS, AWK, SQL, Haskell, Fortran.
Markup	LaTeX, HTML, CSS, Markdown. Experience with XML, RHTML, RMarkdown.
Spanish	Able to listen, speak, read and write.

## References

Prof. Jarad Niemi niemi@iastate.edu	Dept. of Statistics Iowa State University	Major Professor Spring 2014 – Present
Prof. Peng Liu pliu@iastate.edu 515-294-7806	Dept. of Statistics Iowa State University	Major Professor Summer 2012 – Spring 2013
Prof. Laurie Butler	Dept. of Chemistry University of Chicago	Research Assistant Advisor Summer 2008 - Spring 2009
	“Will is both brilliant and sweet. I wish we could have kept him in the field of chemical physics!” - Feb 2010	
Dr. Britni Ratliff	Dept. of Chemistry University of Chicago	Colleague Summer 2008 - Spring 2009
	“Will is a hard-working and considerate team player.” - Feb 2010	