William Michael Landau

Office

3211 Snedecor Hall
Iowa State University
Ames, IA 50011
(201) 563-4325

Web

landau@iastate.edu
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

Wrote an expository paper on a topic in Algebraic Topology.
The REU VIGRE is an undergraduate summer research program.

Research Assistant	The Laurie Butler Group Dept. of Chemistry University of Chicago	Jun 2008 − Jun 2009

Contributed to a chemical reaction dynamics paper (see Publications).
Wrote software to process and analyze 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	

Created and delivered weekly talks on statistical computing with Graphics Processing Units (GPUs) to graduate students and faculty.
Materials are available at http://will-landau.com/gpu.

Course Instructor	STAT 305: Engineering Statistics	Jan 2013 − Dec 2013
	Dept. of Statistics	Jan 2012 − Dec 2012
	Iowa State University	

Planned and delivered bi-weekly lectures to classes of sixty students.
Wrote homework and tests, proctored and graded tests.
Held weekly office hours.

Teaching Assistant	STAT 231: Engineering Probability	Aug 2011 − Dec 2011
	STAT 105: Intro to Engineering Statistics	
	Dept. of Statistics	
	Iowa State University	

Wrote homework solutions.
Graded homework.
Held weekly office hours.

Teaching Assistant	SESAME Program	Jun 2009 − Aug 2009
	Dept. of Mathematics	
	University of Chicago	

Led problem sessions in Methods of Teaching Mathematics Grades 6-8.
Lab TA for a computer science course in Java and Number Theory.
SESAME is a teaching certification program for Chicago public school teachers.

Tutor	Asociacion Civil Puririsun	
	Cusco, Peru	

Tutored children ages four to seventeen in a rural community near Cusco.

Leadership

Preparing Future Faculty Program	Iowa State University	Aug 2013 − Present

Attended courses that offer supplemental training in teaching, research writing, and applying for academic positions.
More information at http://www.celt.iastate.edu/pff/.

Assistant Boxing Coach	Iowa State University Boxing Club	Aug 2012 − Dec 2013

Led and jointly planned beginner boxing classes of roughly 70 participants.
Individually coached beginner and competitive college boxers.
Improved membership and financial bookkeeping systems.

| Junior Firefighter Captain | Volunteer Junior Fire Dept. | Sep 2006 - Jun 2007 |
| | Mountain Lakes, NJ | |

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 | Aug 2013 |
| | Iowa State University | |

Awarded for service in statistical computing while working toward a graduate degree.

| GSK Scholar Award | Dept. of Statistics | Sep 2011 |
| | Iowa State University | |

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 | Sep 2011 |
| | Iowa State University | |

Awarded for a strong application for graduate study.

| Dean's List | University of Chicago | Sep 2007 − Jun 2011 |

Awarded for maintaining an annual undergraduate 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_2H_4OH 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   Dept. of Statistics   Major Professor
niemi@iastate.edu   Iowa State University   Spring 2014 − Present

Prof. Peng Liu   Dept. of Statistics   Major Professor
pliu@iastate.edu   Iowa State University   Summer 2012 − Spring 2013
515-294-7806

Prof. Laurie Butler   Dept. of Chemistry   Research Assistant Advisor
    University of Chicago   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   Colleague
    University of Chicago   Summer 2008 - Spring 2009

"Will is a hard-working and considerate team player." - Feb 2010