

# XIAOFEI (SUSAN) WANG, PH.D.

xiaofei-wang.com

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## EDUCATION

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**Yale University**

May 2014

Ph.D. in Statistics

Advisors: John W. Emerson and Joseph T. Chang

**University of California, Berkeley**

May 2006

B.A. in Applied Mathematics

Overall GPA: 3.821

## RESEARCH INTERESTS

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Bayesian statistics, change point analysis, statistical computing, big data.

## PUBLICATIONS

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Emerson, John W. and Xiaofei Wang (2013). “Advances in Big Data and High-Performance Computing.” *Proceedings of the 2013 IASC Satellite for the ISI WSC and the 8th IASC-ARS Conference*, August 21-23, 2013 (pp. 79-84).

Emerson, John W. and Xiaofei Wang (2013). “Amazon EC2, Big Data and High-Performance Computing.” *Statistical Computing and Graphics Newsletter*, July 2013, 23(1).

Wang, Xiaofei, Sean G. Byars, and Stephen C. Stearns (2013). “Genetic links between post-reproductive lifespan and family size in Framingham.” *EMPH 2013: eot013v1-eot013*.

Ryslik, Gregory and Xiaofei Wang. Exam 4/C Theoretical Knowledge & Exercises Preparation Textbook. New Haven: Actuarial Empire, LLC 2013. Print.

## WORK IN PROGRESS

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Wang, Xiaofei and John W. Emerson. “Extensions of Bayesian Change Point Analysis.” To be submitted to *Journal of the American Statistical Association*.

**R Package:** Bayesian change point analysis (package `bcp` version 4.0.0), with John W. Emerson and Chandra Erdman.

Oatts, J., X. Wang, K. Kaplowitz, N. Patel, N. Loewen. “Effect of Alpha-2-Agonist Premedication on Intraocular Pressure after Selective Laser Trabeculoplasty.” Submitted to *International Journal of Ophthalmology*.

## TEACHING EXPERIENCE

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As instructor:

- STAT 111 - Introduction to Statistics (2014)
- STAT 135 - Introduction to Statistics with Modeling (2015)
- STAT 230 - Intermediate Statistics (2015)

As teaching fellow:

- STAT 107 - Introduction to Statistics (2010, 2011, 2014)
- STAT 361 - Data Analysis (2011)
- STAT 625 - Case Studies (2011)
- STAT 627 - Statistical Consulting (2011, 2012)
- STAT 365 - Data Mining and Machine Learning (2012)
- STAT 230 - Introductory Data Analysis (2012, 2013)
- STAT 238 - Probability and Statistics (2012)

## CONFERENCES

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Contributed Speaker, **Graphical Product Partition Models**, *Joint Statistical Meetings, Montreal, August 2013*.

Poster, **Soul of the Community**, *Joint Statistical Meetings, Montreal, August 2013*.

## AWARDS AND ACHIEVEMENTS

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**Joint Statistical Meetings Data Expo Competition**, Second Place, August 2013.

**YGCC Annual Case Consulting Competition**, First Place, March 2013.

**Leonard J. Savage Writing Prize**, May 2012.

## JOURNALS REFEREED

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*Computational Statistics, Journal of Statistical Software, Journal of Statistics Education, Chance, The American Statistician*

## WORK EXPERIENCE

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### Amherst College

*Lecturer*

2014 - present

*Amherst, MA*

- Teaching five statistics courses per year in the Department of Mathematics and Statistics.
- Facilitating and co-organizing the *Stat Fellows program*, a program supporting six undergraduate students in statistical consulting.
- Managing placement/enrollment in introductory statistics courses.

### Yale StatLab

*Consultant*

2010 - 2012

*New Haven, CT*

- Helped other students and non-statistics faculty with their statistical computing needs, offering high-level statistical advice as well as basic programming assistance.
- Translated Stata code for analyzing datasets in 5 academic papers into R code.
- Led 2 intensive workshops on **Microsoft Excel** and **web scraping via R**.

### The Climate Corporation

*Mathematician/Quantitative Analyst*

2008 - 2009

*San Francisco, CA*

- Simulated daily snowfall for 40 cities from temperature/rain data via machine learning algorithms.
- Prepared customized weather risk analyses with proposed hedging solutions for large businesses in retail, energy, and outdoor entertainment industries.
- Produced automated weather risk profile generator to provide dynamically populated factsheet based on client location and industry.

- Priced simple and compound weather derivatives using R.

## **Mercer**

*Pension Actuary*

2006 - 2008

*San Francisco, CA*

- Performed 20+ valuations projecting client firms pension liabilities decades into the future.
- Reported 7 client firms liabilities in government accounting forms.
- Managed data (up to 30,000+ records per project) prepared data questions, updated data per client response.
- Programmed 3 calculators used to estimate benefit for clients employees.
- Tested 10+ retirement plans for discrimination in favor of executives.

## **PROFESSIONAL MEMBERSHIPS**

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- Member, American Statistical Association
- Associate, Society of Actuaries (since 2008)

## **TECHNICAL STRENGTHS**

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<b>Programming</b>	R, Stata, MatLab, Python, Bash, C++, Java, HTML, PHP, ColdFusion
<b>Database</b>	MySQL, MS Access, MS Excel

## **REFERENCES**

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- **Nick Horton**  
Professor of Statistics  
Department of Mathematics and Statistics  
Amherst College Amherst, MA 01002, USA  
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- **John W. Emerson**  
Associate Professor Adjunct of Statistics  
Department of Statistics  
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- **Joseph T. Chang**  
Professor of Statistics  
Department of Statistics  
Yale University  
New Haven, CT 06520, USA  
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Phone: (203) 432-0642
- **Stephen C. Stearns**  
Edward P. Bass Professor of Ecology and Evolutionary Biology  
Department of Ecology and Evolutionary Biology  
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