

# Luella Fu

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## EDUCATION

### University of Southern California, Los Angeles, California, USA

- Doctor of Philosophy (Ph.D.) in Business Administration Aug 2012 – Aug 2018
- Emphasis on Statistics
- Official degree in Dec 2018
- Marshall Graduate Assistantship, Marshall 5th Year Fellowship

### Yale University, New Haven, Connecticut, USA

- Master of Arts (M.A.) in Statistics Aug 2011 – May 2012
- Teaching Fellow

### Claremont McKenna College, Claremont, California, USA

- Bachelor of Arts (B.A.) in Literature and Mathematics (Dual) Aug 2008 – May 2011
- Brian and Marilyn Gerich Scholarship

## PAPERS

### STATISTICAL METHODOLOGY

- [1] Fu, L., James, G., and Sun, W. (2017+) “False Discovery Rate Control on Heterogeneous Data”. *Ongoing*.
- [2] Fu, L., James, G., and Sun, W. (2017+) “Top-percent selection in large-scale inference with heteroscedastic errors”. *Ongoing*.
- [3] Basu, P., Fu, L., and Sun, W. (2017+) “Empirical Bayes FDX control”. *Ongoing*.
- [4] Fu, L., James, G., and Sun, W. (2017) “Nonparametric empirical Bayes Estimation on Heterogeneous Data”. *Submitted for review*.
- [5] Fu, L. and Fan, Y. (2014) “Stable Adaptive Model Selection”. *Manuscript*.

### STATISTICAL APPLICATIONS

- [1] Fu, S., Fu, L., Towe, C. W., Perry, Y., Delaney, C. P. and Linden, W. (2017+) “Increased hospital costs associated with postesophagectomy complications, primarily anastomotic leak and reintubation”. *Revising with additional data*.
- [2] Fu, L., Jacobs, M. A., Brookover, J., Valente, T. W., Cobb, N. W., and Graham, A. L. (2017) “An exploration of the Facebook social networks of smokers and non-smokers”. *PLOS ONE*.12(11): e0187332.. <https://doi.org/10.1371/journal.pone.0187332>
- [3] Li, C., Zhang, J., and Fu, L. (2012) “Bayesian Model Selection Approach to Drug Resistance”. *Manuscript*.

### CONFERENCES

- [1] Fu, L., James, G., and Sun, W., “Nonparametric Empirical Bayes Tweedie Formula (NEST)”. Presented in Section 584 of the *Joint Statistical Meetings 2018 Conference*, Vancouver, British Columbia, Canada. Aug 2018.
- [1] Fu, L., James, G., and Sun, W., “How to Adapt Tweedie’s Formula for Heteroscedastic Data”. Presented in the Young Investigators Section 2 of the *XXVIIth International Biometric Conference*, Victoria, British Columbia, Canada. Jul 2016.

## TEACHING EXPERIENCE

### Instructor for MATH324: Probability and Statistics for Engineering

- San Francisco State University Aug 2018–
  - Teaching a calculus based introductory statistics course for undergraduates and Masters in Education with both lecture component covering probability and statistics, and R software component.

### Guest Lecturer for BUAD310: Applied Business Statistics

- University of Southern California Nov 2016
  - Filled in twice, for two separate professors, once each.
  - Covered F tests in one class and went over example problems and solutions in both.

### **Instructor for BUAD310: Applied Business Statistics**

- University of Southern California May 2016 – Aug 2016
  - Designed and taught introductory statistics course for undergraduates with both lecture component covering statistical concepts and lab component for Excel.
  - Class met twice weekly for 2.5 hours each. First half comprised warm-up review, lecture and discussion while second half comprised group work.
  - Teacher preparation included choosing a textbook, planning class material, creating homework assignments, making worksheets, rehearsing lecture, preparing class activities, and providing flexible office hours with extra office hours before exams.

### **Guest Lecturer for BUAD310: Applied Business Statistics**

- University of Southern California Apr 2015
  - Filled in for a professor and went over practice exam questions and answers.

### **Teaching Assistant for BUAD310: Applied Business Statistics**

- University of Southern California Jan 2015 – May 2015
  - Held 4 hours of office hours a week to help students with statistics materials and homework.
  - Efforts also included holding additional office hours before exams and providing extra resources by compiled quiz questions from lecture slides and co-hosting Jeopardy review game with a professor.

### **Course Assistant for GSBA 524: Applied Managerial Statistics (Part 2)**

- University of Southern California Aug 2014 – Oct 2014
  - Held 1 hour of office hours twice a week online to discuss course material with remote MBA students.

### **Course Assistant for MBA Statistics Fundamental Course**

- University of Southern California Jun 2014 – Aug 2014
  - Held 2 hours of office hours twice a week to discuss problem sets with MBA students
  - Held additional hours for exam review, 1 hour four times a week.

### **Course Assistant for GSBA 524: Applied Managerial Statistics (Part 1)**

- University of Southern California Jun 2014 – Jul 2014
  - Held 2 hours of office hours twice a week to discuss problem sets with masters students.

### **Grader for STAT230/530: Introductory Data Analysis**

- Yale University Jan 2012 – May 2012
  - Graded weekly data analysis papers for undergraduate and graduate students.

### **Course Assistant for STAT 101–106: Introduction to Statistics**

- Yale University Sep 2011 – Dec 2011
  - Assisted professor by readying lecture material.

### **Mathematics Department Tutor**

- Claremont McKenna College Sep 2010 – May 2011
  - Conducted weekly sessions to help students with calculus, linear algebra, differential equations, introductory computer science, probability, and statistics.

### **Teaching Assistant for ECON 120: Statistics**

- Claremont McKenna College Sep 2010 – Dec 2010
  - Held 2-3 hours of weekly office hours to guide students through homework sets.

## **VOLUNTEERING**

### **USC's Joint Education Program Teaching Assistant**

- Martin Luther King Jr. Elementary School Sep 2016 – Apr 2018
  - Second spring term: Led groups of 3-5 fifth grade students in reading and mathematics activities.
  - First spring term: Led groups of 2-3 second and third grade special education students in reading, writing, and logic activities.
  - First fall term: helped groups of 1-6 third grade students in math and reading.
- St. Raphael School Sep 2015 – Nov 2015
  - Primarily worked with groups of 4–6 sixth and eighth grade students who were reading below grade-level on critical reading. Also administered reading tests.

<b>AWARDS &amp; SCHOLARSHIPS</b>	<ul style="list-style-type: none"> <li>■ <b>IMS Hannan Graduate Student Travel Award</b> 2018 Awarded for student paper "Nonparametric empirical Bayes Estimation on Heterogeneous Data".</li> <li>■ <b>USC Graduate School Travel Grant</b> 2016 Awarded travel funding to present research at a conference.</li> <li>■ <b>WNAR Student Travel Award, WNAR</b> 2016 For submission of student paper to IBC2016.</li> </ul>
<b>PROFESSIONAL AFFILIATIONS</b>	<b>American Statistical Association</b> 2012 – Present <ul style="list-style-type: none"> <li>■ Additional sections: Section for Statistical Programmers and Analysts, Social Statistics, Southern California American Statistical Association, Statistical Learning and Data Science, and Statistics in Marketing</li> </ul>
	<b>Institute of Mathematical Statistics</b> 2015 – Present
	<b>International Biometric Society</b> 2015 – Present
	<ul style="list-style-type: none"> <li>■ Additional sections: Western North American Region</li> </ul>
<b>PROFESSIONAL EXPERIENCE</b>	<b>Modeling and Forecasting Analyst</b> , Facebook Jun 2012 – Aug 2012 <ul style="list-style-type: none"> <li>■ Queried advertising and demographic data from Facebook's massive database; employed statistical models to characterize communities of users for business operations.</li> </ul>
	<b>Financial Analyst</b> , Applied Materials May 2010 – Aug 2010 <ul style="list-style-type: none"> <li>■ Reported financial accounts on company's monthly and yearly financial performance compared to previous periods and compared to competitors.</li> </ul>
<b>SKILLS</b>	R, $\text{\LaTeX}$ , MySQL, Postgresql, RegEx, Python, Excel, HTML, CSS, Git, C++, NodeJS, Javascript, Mathematica, Matlab