

## EDUCATION

<b>University at Buffalo</b> Ph.D Candidate, Biostatistics	<b>Aug 2012 – May 2017 (anticipated)</b> GPA 3.9/4.0
<b>University of the South</b> Post-baccalaureate student, Mathematics	<b>Aug 2010 – May 2012</b> GPA 4.0/4.0
<b>University of California, Berkeley</b> Ph.D Candidate, Psychology	<b>Aug 2009 – Mar 2010</b> GPA 4.0/4.0
<b>Indiana University, Bloomington</b> Bachelor of Science in Music and an Outside Field Graduated with High Distinction Major: Piano Performance Outside Field: Psychology, with Departmental Honors	<b>Aug 2003 – Aug 2007</b> GPA 3.9/4.0

## EXPERIENCE

<b>University at Buffalo, Dept of Biostatistics, Buffalo, NY</b> <i>Research Assistant</i> Principal Investigator: Dr. Marianthi Markatou	<b>June 2013 – Present</b>
<ul style="list-style-type: none"><li>• Worked with collaborators at University at Buffalo and IBM Watson Labs to develop algorithms for clustering mixed continuous and categorical data subject to measurement error</li><li>• Coded, implemented, and analyzed various Monte Carlo simulation studies on clusters of 4–200 cores, using MPI for parallelization</li></ul>	
<b>University at Buffalo, Dept of Biostatistics, Buffalo, NY</b> <i>Teaching Assistant</i>	<b>Fall 2012, Spring 2013</b>
<ul style="list-style-type: none"><li>• TA for graduate and undergraduate statistics courses</li><li>• Led weekly recitation sections, held weekly office hours, graded homework, assisted in grading exams</li><li>• Received excellent student evaluations: 94% agreement with the statement “Presents material well,” 80% respondents categorizing overall teaching effectiveness as “One of the best” or “Above Average”, and comments such as “One of the best TAs I have had so far.”</li></ul>	
<b>University at Buffalo, Dept of Biostatistics, Buffalo, NY</b> <b>Population Health Observatory</b> <i>Research Assistant</i> Principal Investigator: Dr. Randolph Carter	<b>Summers 2010, 2011, 2012</b>
<ul style="list-style-type: none"><li>• Implemented a Monte Carlo simulation in R evaluating published methods of calculating the lifetime risk at birth of Krabbe disease (published 2013)</li><li>• Assisted in the writing of grant proposals to the NIDDK and HRSA, as well as an ARRA grant proposal.</li></ul>	
<b>New York University, Dept of Applied Psychology, New York, NY</b> Principal Investigator: Dr. Arnold Grossman <i>Data Analyst (part-time)</i>	<b>Mar 2011 – June 2012</b>
<ul style="list-style-type: none"><li>• Analyzed associations between domestic abuse, neglect and other variables in elderly LGBT adults, as well as associations between homelessness and traumatic life events in LGBT youth</li><li>• Co-author on a paper investigating the relationship between pubertal timing and sexual identity development (published 2014)</li></ul>	

University of California, Dept of Psychology, Berkeley, CA  
Affective Cognitive Neuroscience Lab  
Principal Investigator: Dr. Sonia Bishop  
Graduate Student Researcher

Aug 2009 – Apr 2010

- Assisted in the design and analysis of a functional MRI study investigating neural processing of ambiguous and pure emotions
- Assisted in the writing of an NIMH BRAINS research grant concerning anxiety reduction biofeedback training using real-time fMRI

Yale University School of Medicine, New Haven, CT  
Children's Hospital of Philadelphia, Philadelphia, PA  
Developmental Neuroimaging Lab  
Principal Investigator: Dr. Robert Schultz  
Research Assistant (full time)

Oct 2007 – Jun 2009

- Assisted in the design and analysis of fMRI studies of visual perception and social cognition

Indiana University, Dept of Psychological & Brain Sciences, Bloomington, IN  
Cognition & Action Neuroimaging Lab  
Principal Investigator: Dr. Karin James  
Undergraduate Research Assistant

Sep 2005 – Aug 2007

- Designed, analyzed, and published results of an fMRI experiment investigating the neural correlates of auditory perception of tone combinations; analysis conducted using BrainVoyager QX (published 2007)

## PUBLICATIONS

AH Grossman, **AH Foss**, and AR D'Augelli (2014). "Puberty: Maturation, Timing and Adjustment, and Sexual Identity Developmental Milestones among Lesbian, Gay, and Bisexual Youth". In: *Journal of LGBT Youth* 11, pp. 107–124

**AH Foss**, PK Duffner, and RL Carter (2013). "Lifetime Risk Estimators in Epidemiological Studies of Krabbe Disease: Review and Monte Carlo Comparison". In: *Rare Diseases* 1.2, e25212

AL Barczykowski, **AH Foss**, PK Duffner, L Yan, and RL Carter (2012). "Death Rates in the U.S. due to Krabbe Disease and Related Leukodystrophy and Lysosomal Storage Diseases". In: *American Journal of Medical Genetics Part A* 158A, pp. 2835–2842

**AH Foss**, EL Altschuler, and KH James (2007). "Neural Correlates of Pythagorean Ratio Rules". In: *Neuroreport* 18, pp. 1521–1525

## INVITED TALKS

**AH Foss**, A Heching, B Ray, and M Markatou (2014). "Clustering Mixed Data Subject to Measurement Error". In: *International Society for Business and Industrial Statistics*, ASA Section on Statistical Learning and Data Mining. Durham, NC, USA

## POSTERS

**AH Foss**, P Duffner, and R Carter (2013). "Lifetime Risk Estimators in Epidemiological Studies of Krabbe Disease: Review and Monte Carlo Comparison". In: *Joint Statistical Meetings*. Montreal, Canada

A Nuñez-Elizalde, **AH Foss**, G Aguirre, and SJ Bishop (2010). "Does he look scared to you? Effects of trait anxiety upon neural dissimilarity measures for ambiguous and pure emotional expressions". In: Vision Sciences Society. Naples, FL, USA

JK Herrington, DW Grupe, ET Hunyadi, CS Shin, **AH Foss**, JM Taylor, and RT Schultz (2010). "Fusiform gyrus and face processing: Intrasubject stability, hemispheric asymmetry, and effective connectivity". In: International Meeting for Autism Research. Philadelphia, PA, USA

**AH Foss** and KH James (2006). "Music and language processing: Investigating the neural correlates of expertise". In: Human Brain Mapping. Chicago, IL, USA

## ACADEMIC HONORS

- Two Honorable Mentions, NSF GRF Program Spring 2012 and 2013
- Perry Poster Award, University at Buffalo (\$100) April 19, 2013
- Presidential Fellowship, University at Buffalo (\$23,000) Fall 2012
- Diebold Fellowship, UC Berkeley Psychology Dept (\$14,600) Fall 2009
- Excellence in Research Award, IU Psychology Dept April 19, 2007
- Honors Thesis Award, IU Honors College Spring 2007
- Capstone Grant, Howard Hughes Medical Institute (\$4,250) Spring 2006
- Metz Scholarship, IU Honors College (\$56,000) Fall 2003
- Merit scholarship, IU School of Music (\$40,000) Fall 2003

## COMPUTER SKILLS

**Languages:** R, Bash, C, Java, Mathematica, MATLAB, Processing, Python, Visual Basic, HTML, CSS

**Software:** SPSS, SAS, pdfTEX, Sweave, VIM, OpenOffice/LibreOffice, MS Office Suite

**Operating Systems:** Windows (98/XP/Vista/7/8), Macintosh (OS9, OSX), Linux (Red Hat, Ubuntu, CentOS)

## SELECTED COURSEWORK

**University of Indiana, Bloomington: University at Buffalo, Master's Level:** Regression Analysis, Categorical Data Analysis, Multivariate Data Analysis, Statistics for Bioinformatics, Statistical Comparisons and Associations

**University at Buffalo, PhD Level:** Topics in Advanced Modeling, Advanced Categorical Data Analysis, Advanced Survival Analysis, Theory of Linear Models, Limit Theory, Theory of Statistical Inference

**University of the South:** Probability and Statistics I/II, Multidimensional Calculus, Linear Algebra, Discrete Mathematical Structures, Genomics, Numerical Analysis

## OTHER PROFICIENCIES

- Fluent in Spanish
- Classically-trained pianist, freelance organist

## GRE SCORES

**General GRE scores:** 790 Quantitative, 730 Verbal, 5.5 Analytical Writing

**Psychology Subject GRE score:** 830

## SERVICE

**University at Buffalo School of Public Health and Health Professions (SPHHP), Academic Affairs Committee**

*Committee Member*

**Sep 2014 – Present**

- Worked with the Senior Associate Dean for Academic and Student Affairs to establish standards for undergraduate, graduate, and post graduate study in the SPHHP
- Issues addressed included the establishment of new programs, new course proposals, academic policies and procedures, admissions, and clinical education policies

**New York State Center of Excellence in Bioinformatics and Life Sciences**

*Volunteer Speaker*

**July 24, 2012**

- Gave a presentation on face recognition, brain imaging, and autism to a group of exchange students

**The Franklin Institute Museum of Science**, Philadelphia, PA

*Volunteer*

**Nov 2007 – Oct 2008**

- Conducted science demonstrations including paper-making, the “brain bar” neuroscience exhibit, and the Baldwin 60,000 steam engine simulation
- Interacted individually with children ages 4–16 and their parents

**Wonderlab Museum of Science**, Bloomington, IN

*Volunteer*

**May 2006 – Jul 2007**

- Conducted “science-on-the-spot” demonstrations
- Interacted individually with children ages 4–12 and their parents

**International Service Learning**, Kansas City, MO/San Jose, Costa Rica

*Volunteer*

**Mar 10 – 18, 2007**

- Helped set up clinics in Costa Rica in the towns of Tibás and Puntarenas
- Conducted community triage, took patient histories, gave eye examinations, and prescribed reading glasses