

## EDUCATION

<b>Ph.D.</b>	Statistics Thesis: Topics in Functional Data Analysis	North Carolina State University	<b>2019</b>
<b>M.A.</b>	Statistics	North Carolina State University	<b>2016</b>
<b>B.S.</b>	Environment (honors), Ecology Minors: Geology, Statistics	University of Michigan - Ann Arbor	<b>2013</b>

## EXPERIENCE

*Graduate Summer Intern* May 2018 - July 2018

### **Sandia National Laboratories**

- Supported industrial and national security projects using functional data methods and data visualization, including presentations and written reports for customers

*Science Advisor (previously Graduate Industrial Trainee)* May 2017 - Present; 2015 - 2016

### **International Pharmaceutical Aerosol Consortium on Regulation & Science**

Supervisor: Dr. Beth Morgan, Ph.D., Pearl Therapeutics

- Developed new data-driven model for variability of inhaled/nasal products; designed and conducted comprehensive SAS simulation study of FDA's PBE approach
- Led weekly teleconference for industry working group; prepared technical reports and manuscripts for publication; presented internal IPAC-RS webinar

*Collaborator; Fetal Growth, Pregnancy & Newborn Outcomes group* May 2016 - Dec 2018

### **HBGDki initiative, Bill & Melinda Gates Foundation**

- Collaborated on projects modeling ultrasound measurements using nonparametric methods and impact of gestational diabetes using propensity score matching

*Fulbright Student Scholar* Aug 2013 - Apr 2014

### **Northwest University, Xian, China**

Advisor: Dr. Songtao Guo

- Designed and conducted nutritional study of captive golden-snub nosed monkeys at two Chinese zoos including observational fieldwork and labwork
- Publication written with Chinese collaborators accepted to *Int. J. of Primatology*

*Paleobotany Research Assistant* Aug 2009 - Apr 2013

### **University of Michigan - Ann Arbor**

Advisors: Dr. Selena Smith & Dr. Nathan Sheldon

- Processed and analyzed ancient soil phytoliths and isotopes for environmental reconstruction
- Two first-author presentations and publications in *Palaeogeog.*, *Palaeoclimato.*, *Palaeoeco.*

## TEACHING

*Teaching Assistant* Aug 2018 - Present; Aug 2014 - May 2015

### **North Carolina State University**

- ST 502: Statistical Inference II; lead practice sessions, created solutions, graded homework
- STAT 311: Introduction to Statistics; held office hours, graded homework

*Environment (PitE) Peer Advisor* Jan 2011 - May 2013

### **University of Michigan - Ann Arbor**

- Advised current and prospective students on academic progress, led orientation sessions, and organized & staffed department events

## AWARDS

- Certificate of Appreciation, for outstanding technical work  
International Pharmaceutical Aerosol Consortium on Regulation & Science **2018**
- S-STEM awardee, for student development  
North Carolina State University, National Science Foundation **2014**
- Fulbright Student Scholarship (China), for research and collaboration  
Fulbright Program, U.S. State Department **2013**
- International Institute Fellowship (\$5000), for honors thesis research  
University of Michigan - Ann Arbor **2012**
- Jerome Fine Honors Grant (\$350), for research equipment  
University of Michigan - Ann Arbor **2012**
- PitE Individual Grant (\$500), for conference travel  
University of Michigan - Ann Arbor **2012**

## PUBLICATIONS

- **Chen ST**, Xiao L, Staicu AM (in prep) Model Testing for Generalized Scalar-on-Function Linear Models. *Computational Statistics and Data Analysis*.
- **Chen ST**, Morgan BE, et al. (in prep) Performance of the Population Bioequivalence Test with Impactor-Sized Mass Data. *AAPS PharmSciTech*.
- **Chen ST**, Xiao L, Staicu AM (2018) A Smoothing-based Goodness-of-Fit Test of Covariance for Functional Data. *Biometrics*. <https://doi.org/10.1111/biom.13005>.
- **Chen ST**, Luo X., et al. (2018) Nutrient Balancing by Captive Golden Snub-nosed Monkeys (*Rhinopithecus roxellana*). *Int. J. Primatology*. <https://doi.org/10.1007/s10764-018-0070-6>.
- Morgan BE, **Chen ST**, et al. (2018) Performance of the Population Bioequivalence (PBE) Statistical Test Using an IPAC-RS Database of Delivered Dose from Metered Dose Inhalers. *AAPS PharmSciTech*. 19: 1410-1425.
- **Chen ST**, Smith SY, Sheldon NS, Stromberg CAE (2015) Regional-scale variability in the spread of grasslands in the late Miocene. *Palaeogeog., Palaeoclimato., Palaeoeco.* 437: 42-54.
- **Chen ST**, Smith SY (2013) Phytolith Variability in Zingiberales: A tool for the reconstruction of past tropical vegetation. *Palaeogeog., Palaeoclimato., Palaeoeco.* 370: 1-12.
- **Chen ST** (2013) Nutritional Ecology of Captive Golden Snub-nosed Monkeys. Undergraduate Honors Thesis, University of Michigan. (received Highest Honors)

## PRESENTATIONS

- **Chen ST**, Xiao L, Staicu AM (2018) Model Testing for Generalized Scalar-on-Function Linear Models. Joint Statistical Meetings, Vancouver, BC.
- **Chen ST**, Xiao L, Staicu AM (2017) Testing the Adequacy of Linear Mixed Effects Models. Joint Statistical Meetings, Baltimore, MD.
- **Chen ST**, Smith SY, Sheldon NS, Stromberg CAE (2012) Tracking the Spread of Ancient Grasslands. Geological Society of America, Charlotte, NC.
- **Chen ST**, Smith SY (2011) Phytolith Variability in Zingiberales: A Tool for the Reconstruction of Past Tropical Vegetation. Geological Society of America, Minneapolis, MN.

## SKILLS

**Programming:** R, SAS, JMP, Python, SPSS, LaTeX

**Languages:** English (native), Mandarin Chinese (fluent)

## EXTRA-CURRICULAR ACTIVITIES

Functional Data Reading Group	Webmaster	2017 - Present
Wake County Animal Center	Volunteer Dog-Walker	2014 - Present
Statistics Graduate Student Association	Treasurer	2016 - 2018
Michigan Ice Carving Team	Member/President	2010 - 2013/2012-2013