

# KYLE C. BURRIS

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## EDUCATION

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<b>Ph.D. Statistical Science</b> , <i>Duke University</i> Certificate in College Teaching	Expected 2019
<b>M.S. Statistical Science</b> , <i>Duke University</i>	Expected 2018
<b>B.S. Mathematics, B.A. Economics</b> , <i>Wheaton College (IL)</i> Summa Cum Laude Academic GPA: 3.97/4.0	2015

## RESEARCH EXPERIENCE

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<b>Research Assistant</b> <i>Department of Statistical Science, Duke University</i>	August 2017 - Present <i>Durham, NC</i>
<ul style="list-style-type: none"><li>· Advisor: Peter Hoff</li><li>· Project: Develop an efficient adaptive confidence interval procedure with guaranteed frequentist coverage for areal spatial data</li></ul>	
<b>Research Assistant</b> <i>Department of Psychiatry and Behavioral Sciences, Duke University</i>	January 2017 - June 2017 <i>Durham, NC</i>
<ul style="list-style-type: none"><li>· Advisors: Jerry Reiter and Greg Appelbaum</li><li>· Project: Explore the relationship between sensorimotor metrics and on-field performance in MLB baseball and develop a Bayesian hierarchical model to compare minor league players across leagues</li></ul>	
<b>Research Assistant</b> <i>Triangle Census Research Network, Duke University</i>	June 2016 - May 2017 <i>Durham, NC</i>
<ul style="list-style-type: none"><li>· Advisor: Jerry Reiter</li><li>· Project: Extend constrained Bayesian edit-imputation methodology to incorporate flexibly specified measurement error models</li></ul>	

## TEACHING EXPERIENCE

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<b>Instructor of Record</b> <i>Duke University</i>	May 2017 - August 2017 <i>Durham, NC</i>
<ul style="list-style-type: none"><li>· Taught two 25 student sections of STA 101 during Summer 2017 Terms I and II</li><li>· Created unique lecture materials, application exercises, exams, and an applied data science project</li></ul>	
<b>Statistics MOOC Developer</b> <i>Duke University</i>	May 2016 - April 2017 <i>Durham, NC</i>
<ul style="list-style-type: none"><li>· Collaborated with four statistics professors to develop the Statistics with R Specialization on Coursera</li><li>· Provided support and learning objectives to the nearly 90,000 people enrolled in the MOOC</li></ul>	
<b>Teaching Assistant</b> <i>Duke University &amp; Wheaton College</i>	August 2013 - Present <i>Durham, NC &amp; Wheaton, IL</i>
<ul style="list-style-type: none"><li>· Duke: STA 102 - Intro to Biostatistics, STA 112 - Data Science</li><li>· Wheaton: STA 263 - Statistics I, MATH 245 - Linear Algebra, ECON 371 - Game Theory</li></ul>	

**Mathematics Bootcamp Instructor***Duke University*

August 2016, August 2017

*Durham, NC*

- Taught and developed curriculum for a probability theory and linear algebra bootcamp, taken by incoming MS and PhD students

**Data Plus Mentor***Duke University*

May 2017 - July 2017

*Durham, NC*

- Supervised a team of undergraduates on a research project in collaboration with professors from the EE department and medical school
- Project: Classify patient doppler ultrasound signals as healthy or unhealthy using a combination of feature extraction and machine learning algorithms

**INDUSTRY EXPERIENCE**

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**Product Development Intern***ICM, Inc.*

May 2013 - August 2013

*Colwich, KS*

- Specified an areal spatial data model to forecast corn stover yields in Midwestern counties
- Designed a financial model to help the company select an optimal plant location

**TECHNICAL STRENGTHS**

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**Limited Experience**

MATLAB, SAS, Stata, Java, SQL, Spark

**Working Knowledge**Python, C++, L<sup>A</sup>T<sub>E</sub>X, Git, JAGS/Stan**Advanced Knowledge**

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**SUBMITTED PAPERS**

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**Burris, K.**, Vittetoe, K., Ramger, B., Suresh, S., Tokdar, S., Reiter, J., Appelbaum, G. *Eye on the ball: The relationship between sensorimotor abilities and on-field performance in professional baseball.* Nature Scientific Reports (under review), 2017.

**IN-PROGRESS PAPERS**

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**Burris, K.** and Coleman, J. *Out of gas: quantifying reliever fatigue in MLB baseball.*

**Burris, K.** and Reiter, J. *Flexible Bayesian edit-imputation for continuous microdata.*

**Burris, K.** and Hoff, P. *Exact adaptive confidence intervals for structured multigroup data.*

**PRESENTATIONS**

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New England Symposium for Sports in Statistics (Cambridge, MA)

2017

*Out of gas: quantifying reliever fatigue in MLB baseball*

Duke Graduate School Preliminary Exam (Durham, NC)

2017

*Measurement error modeling specification in Bayesian data editing*

Duke Statistical Science Seminar (Durham, NC)

2016

*Numerical integration of win probability curves: A stochastic matrix model for football rankings*

Wheaton College Economics Spring Symposium (Wheaton, IL)

2014

*The effect of the NFL scouting combine on the professional labor market*

Summer Institute of Biostatistics Poster Symposium (New York, NY)

2014

*Breast cancer classification using fine-needle aspiration testing*

## **AWARDS/ACCOMPLISHMENTS**

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First Place, Analytics Division, *TruMedia Baseball Hackathon*

2017

Statistical Science Fellowship, *Duke University*

2015

Angeline J. Brandt Award for Excellence in Mathematics, *Wheaton College*

2015

Wheaton College Scholastic Honor Society Inductee, *Wheaton College*

2015