Samantha C. Tyner

CONTACT
INFORMATION

2414 Snedecor Hall
Department of Statistics
Iowa State University
Ames, Iowa USA 50011

Phone: 630.346.3539
E-mail: sctyner@iastate.edu

EDUCATION

Iowa State University, Ames, Iowa, USA

Ph.D., Statistics, Expected December 2017
   Advisor: Heike Hofmann
M.S., Statistics, May 2015
Cumulative GPA: 3.63/4.00

Augustana College, Rock Island, Illinois, USA

B.A. *summa cum laude* in Mathematics, Economics, and French, May 2012
Cumulative GPA: 3.93/4.00

HONORS &
AWARDS

Winner, Statistical Computing and Statistical Graphics Sections of the ASA 2016 Student Paper Competition for "Using the geomnet Package: Visualizing African Slave Trade, 1514 - 1866"

Runner up, 2015 Young Statisticians Writing Competition, by the Young Statisticians Section of the Royal Statistical Society for "The Joy of Clustering (with Bob Ross)"

Alumni Fellowship, Dept. of Statistics, Iowa State University, Awarded Fall 2012

Phi Beta Kappa, Inducted May 2012

Pi Mu Epsilon, Inducted May 2011

Omicron Delta Kappa, Inducted December 2011

Augustana College Dean's List, all terms Fall 2008 - Spring 2012

ACADEMIC
EXPERIENCE

Iowa State University, Ames, Iowa USA

Research Assistant   **August 2015 - Present**
Working with Drs. Alicia Carriquiry and Heike Hofmann in the Center for Statistics and Applications in Forensic Evidence (CSAFE) on human factors in presentation of forensic evidence.

Teaching Assistant   **August 2014 - May 2015**
Instructor for STAT 104: Introduction to Statistics. Gave weekly lectures and labs, wrote and graded exams.

Research Assistant   **August 2013 - August 2014**
Working with Dr. Shauna Hallmark of Iowa State University's Institute for Transportation on modeling curve navigation on rural highways.

Teaching Assistant   **August 2012 - July 2013**
Grade weekly homework assignments for Introduction to Statistics. Supervise lab section of Principles of Statistics twice weekly.

Valparaiso University, Valparaiso, Indiana USA

VERUM   **May 2011 - July 2011**
Participated in the Valparaiso Experience in Research by Undergraduate Mathematicians summer program. Worked with Dr. Lara Pudwell on pattern avoidance in full binary tree graphs.

Augustana College, Rock Island, Illinois USA

Earl H. Beling Scholar of Mathematics **January 2011 - May 2011**
Performed guided research under Dr.Thomas Bengtson. Studied economic applications of logarithmic regression.

WORK
EXPERIENCE

Social and Decision Analytics Laboratory, Biocomplexity Institute,
Virginia Polytechnic Institute and State University, Arlington, VA, USA

Student Fellow **May 2016 - August 2016**
Student fellow in the Data Science for Public Good program. Worked with other students, faculty, and Arlington County employees on a variety of data-driven and policy-focused projects for Arlington County, Virginia.

NORC at the University of Chicago, Chicago, IL, USA

Graduate Research Assistant **August 2015 - April 2016**
Continuation of my summer internship duties part time as a consultant.

Data Visualization Intern **May 2015 - August 2015**
Created data visualizations for a multitude of projects as an intern in the Statistics and Methodology department. Led four hour-long internal seminars on the theory and practice of data visualization. Worked closely with project leads in several departments, including Public Health, Communications, AP-NORC Center for Public Affairs Research, and Education and Child Development.

Kingland Systems Corporation, Ames, Iowa USA

Statistical Analyst Intern **May 2014 - August 2014**
Served as a member of the Process Management team and performed routine data analysis on project and product data that is utilized by the corporate governing body to make decisions and refine processes and enhance tools. Built predictive analysis models based on historical data to be used in support of planning and estimating of sofware development processes. Developed charts, graphs and tables to support management visibility of projects, products, and portfolios.

WORKSHOPS
TAUGHT

Empowering Women with Self-defense Skills using R, Charlotte, NC, USA

with Heike Hofmann **October 22, 2016**
Workshop on data cleaning, webscraping, and data visualization in R. Presented at the 2016 Women in Statistics and Data Science conference.

The Week of R, Ames, Iowa, USA

with Eric Hare, Andee Kaplan, and Heike Hofmann **May 16-19, 2016**
Intensive workshop on the basics of R, as well as data cleaning, webscraping, data visualization, and Shiny in R and RStudio. Presented at Iowa State University.

PUBLICATIONS

Tyner, S., Briatte, F., and Hofmann, H. "Network visualization with ggplot2." *The R Journal.* Accepted, 2016.

Tyner, S. "Using the R Package geomnet: Visualizing Trans-Atlantic Slave Trade of Africans, 1514?1866." *CHANCE.* Sep 2016. 29(3)

Tyner, S., "The Joy of Clustering." *Significance Magazine Online.* 11 Nov 2015 `http://www.statslife.org.uk/culture/2553-the-joy-of-clustering`

Hallmark,S., **Tyner, S.**, Oneyear, N., Carney, C., and McGehee, D. "Evaluation of driving behavior on rural 2-lane curves using the SHRP 2 naturalistic driving study data." *Journal of Safety Research*, 54 (2015), p17-27.

Dairyko, M., Pudwell, L., **Tyner, S.**, and Wynn, C. "Non-Contiguous Pattern Avoidance in Binary Trees" *Electronic Journal of Combinatorics* 19 (3) (2012), P22.

COMPUTING & MARKUP SKILLS	**Expertise:** R/RStudio, JAGS/WinBugs, Shiny, LaTeX, Markdown, HTML/CSS **Familiarity:** C/C++, SAS, Python, Julia, Mathematica, Maple

CONFERENCE PRESENTATIONS

Joint Statistical Meetings, Chicago, Illinois, USA

Topic-Contributed Session   **August 2016**
"Visual Inference for Networks" with Hofmann, H..

Annual Conference of the Royal Statistical Society, Exeter, Devon, UK

Invited Talk - Young Statisticians Section   **September 2015**
"The Joy of Clustering (with Bob Ross)"

Joint Statistical Meetings, Seattle, Washington, USA

Contributed Session   **August 2015**
"Network Visualization in `ggplot2`: `geom_net`" with Hofmann, H..

Women in Statistics, Cary, North Carolina, USA

Poster Session   **May 2014**
"Using Change Point Models to Assess Drivers' Navigation of Rural Curves" with Hallmark, S.

Joint Statistical Meetings, Montréal, Québec, CAN

Data Expo Poster Session   **August 2013**
"An Illustration of the Soul of the Community" with Grant, M.

Joint Mathematics Meetings, Boston, Massachusetts, USA

Undergraduate Poster Session   **January 2012**
"Non-Contiguous Pattern Avoidance in Binary Trees" with Dairyko, M. and Wynn, C.

Illinois Section of Mathematical Association of America, Naperville, Illinois, USA

Undergraduate Presentation Session   **March 2011**
"Logarithmic Regression and the Phillips Curve"

ADDITIONAL PROFESSIONAL ACTIVITIES

Iowa State University, Ames, Iowa USA

Co-founder and co-organizer, R-Ladies Ames   **December 2016 - Present**
Founded the Ames chapter of the global organization R-Ladies, which promotes gender parity amond R users, R package authors, and members of the R foundation and board of directors.

Departmental Committees   **August 2014 - Present**
Served alongside faculty and staff as the student member of departmental committees: the Social Committee (2014-15) and the Honors and Awards Committee (2015-16, 2016-17).

The Iowa Stat-ers Club   **August 2012 - May 2016**
Led this Statistics Department graduate student organization in multiple executive positions: Secretary (2013-14), Social Chair (2014-15), and President (2015-16).