

Andrew DiLernia

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EDUCATION

University of Minnesota

Current Ph.D. student, Division of Biostatistics
Ph.D. Minor in Data Science

Minneapolis, MN
September 2016 - Present

Grand Valley State University

B.S. in Mathematics and Statistics, Magna cum laude

Allendale, MI
April 2016

RESEARCH EXPERIENCE

University of Minnesota

Research Assistant

Minneapolis, MN

Connectivity Analysis and Preprocessing of fMRI Data

May 2017 - Present

- Collaborating with Dr. Lin Zhang and Dr. Karina Quevedo
- Developing connectivity analysis and clustering methods for fMRI data
- Preprocessing fMRI data using R

Comparing Cytotoxicity of Tobacco Carcinogens

September 2016 - Present

- Collaborating with Dr. Lin Zhang and Dr. Lisa Peterson
- Conducting a genome-wide association study (GWAS) analysis using R to investigate cytotoxic and genotoxic effects of a tobacco carcinogen
- Cleaning and preparing data for analyses using R
- Creating plots and summary statistics using R

Information in Games

August 2016 - March 2018

- Collaborated with Dr. Joseph Koopmeiners and Dr. Julian Wolfson
- Developed a method to quantify the amount of information sports games yield about the relative strengths of teams
- Analyzed, web-scraped, and cleaned data using R
- Created plots and summary statistics using R

Grand Valley State University

Research Assistant

Allendale, MI

The LGBTQ-Friendly Physician Project

August 2015 - April 2016

- Collaborated with Dr. Neal Rogness and Dr. Danielle DeMuth
- Worked to make information available for members of the greater Grand Rapids LGBTQ community regarding the services provided by health care professionals
- Developed survey
- Wrote IRB proposal

TEACHING EXPERIENCE

University of Minnesota

Minneapolis, MN

Teaching Assistant

Advanced Programming & Data Analysis in R

January 2019 - May 2019

- Course covered tools and techniques for statistical programming and data analysis in a research or production environment
- Taught use of Github, RMarkdown for reproducibility, data bases in R, Shiny for interactive tables and graphics, visualizing spatial data, and basics of creating R packages

Biostatistical Literacy

September 2018 - December 2018

- Course covered understanding and interpreting statistical analyses in literature
- Topics included hypothesis testing, logistic and multiple linear regression, and survival analysis
- Student audience was graduate students in the allied health sciences

Biostatistical Modeling and Methods

January 2018 - May 2018

- Course covered statistical modeling and inference applied to public health
- Held office hours for assisting students with assignments
- Student audience was graduate students in the allied health sciences

Fundamentals of Biostatistical Inference

September 2017 - December 2017

- Course covered probability and statistical inference with applications to research in public health and other health science fields
- Held office hours for assisting students with assignments
- Student audience was graduate students in the allied health sciences

Biostatistics I

September 2016 - May 2017

- Led lab sessions teaching students coding in R and SAS
- Taught basics of statistical analysis applied to public health data
- Held office hours for assisting students with assignments
- Student audience was graduate and professional students in the allied health sciences

Grand Valley State University

Allendale, MI

Teaching Assistant and Statistical Consultant

Statistics Tutor

August 2013 - April 2016

- Assisted students with courses covering SAS, probability and distribution theory, hypothesis testing, and descriptive statistics

Statistical Consulting

January 2015 - April 2015

- Cleaned and summarized data on student internships using SAS
- Created poster and formal report for GVSU Career Services

Grader for Non-Parametric Statistics

August 2014 - April 2015

- Graded homeworks and quizzes for a non-parametrics course

PROFESSIONAL EXPERIENCE

USDA National Agricultural Statistics Service (NASS)

Student Intern Agricultural Statistician

East Lansing, MI

May 2014 - July 2016

- Manure Application Survey
 - Created SAS program for integration and recording of data, data cleaning, and analysis
 - Edited and processed surveys
- Developed County Estimate Reports
 - Created state and county crop yield maps using ArcGIS
 - Created ARG (Agricultural Report Generator) script for producing reports
- Updated USDA NASS website
 - Performed maintenance of links using HTML
 - Uploaded new reports to website and created new links to reports
- Created SAS program for summarizing employee feedback of training sessions

PROGRAMMING SKILLS

Proficient

R
SAS
LaTeX
Windows OS

Some experience

Unix/Linux OS
C++
Mathematica
JMP
SPSS

PUBLICATIONS

1. Julian Wolfson, Joseph S. Koopmeiners, and Andrew DiLernia. Who's good this year? Comparing the information content of games in the four major US sports. *Journal of Sports Analytics*, 4(2):153–163, 2018

PRESENTATIONS

Simultaneous Estimation of Functional Connectivity and Clustering

University of Minnesota SPH Research Day

Minneapolis, MN

April 2019

- Collaborated with Lin Zhang
- Created and presented poster displaying a novel approach for analyzing fMRI data using a random covariance clustering model

Comparing Cytotoxicity and Genotoxicity of a Tobacco Carcinogen

EU-US Conference on Repair of Endogenous DNA Damage

Udine, Italy

September 2017

- Collaborated with Lisa Peterson (presenter), Igor Ignatovich, Alex Grill, Yen-Yi Ho, and Lin Zhang
- Created plots and summary statistics for poster and conducted GWAS analysis
- Earned poster award

The Importance of Internships: A Statistical Consulting Experience

Grand Valley State University Annual Student Scholars Day

Allendale, MI

April 2015

- Collaborated with Lauren Berry and John Gabrosek
- Created and presented poster with summary statistics and visualizations

AWARDS & HONORS

Summer Institute in Statistics for Big Data Seattle, WA
Registration and Travel Award July 2017

- Earned certificates in 3 modules from University of Washington, Division of Biostatistics
 - Data Wrangling with R
 - Visualization of Biomedical Big Data
 - Reproducible Research for Biomedical Big Data

School of Public Health Dean's Scholarship Minneapolis, MN
Recognition of high academic achievement September 2016

Mu Sigma Rho Allendale, MI
National Statistics Honor Society April 2016

"I am Grand Valley" Allendale, MI
Recognition of student leadership and contributions to the campus community January 2015

PROFESSIONAL MEMBERSHIPS

American Statistical Association April 2015 - Present

EXAMS COMPLETED

Ph.D. Qualifying Exam Minneapolis, MN
Biostatistics Ph.D. Written Exam, Passed August 2018

Master's Competency Exam Minneapolis, MN
Biostatistics Master's Written Exam, Passed May 2017