

Ronald J. Yurko, Jr.

CONTACT INFORMATION	Department of Statistics & Data Science Carnegie Mellon University Pittsburgh, PA 15213	724-331-4520 ryurko@stat.cmu.edu http://www.stat.cmu.edu/~ryurko/
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EDUCATION	Carnegie Mellon University , Pittsburgh, PA PhD Student, <i>Statistics</i> , 2017 - Present B.S., <i>Statistics</i> , Dec 2015 (University Honors)	GPA: 3.97/4.00
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RESEARCH INTERESTS	Clustering, multilevel models, science of data science, ensemble methods, computational statistics, teaching statistics, statistics in sports
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CONFERENCE & SEMINAR PRESENTATIONS (<i>upcoming in italics</i>)	Invited Talks <i>nflWAR: A Reproducible Method for Offensive Player Evaluation in Football</i> Carnegie Mellon Sports Analytics Conference (Pittsburgh, PA) Computational Sports Informatics Colloquium (Pittsburgh, PA) New England Symposium on Statistics in Sports (Cambridge, MA)	Oct 28, 2017 Oct 12, 2017 Sep 23, 2017
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Contributed Talks

Cascadia Symposium on Statistics in Sports (Vancouver, BC) <i>Multilevel Models to Measure Player, Team, and Stadium Effects on NFL Injury Risk</i> (Joint work with Zachary Binney)	Aug 3, 2018
Classification Society Annual Meeting (Stony Brook, NY) <i>Detecting Data Analysis Patterns in Text and Graphs to Characterize Student Learning in an Introductory Statistics & Data Science Course</i> <i>Variable Selection for Consistent Clustering</i>	June 23, 2018
Symposium on Data Science & Statistics (Reston, VA) Classification Society Annual Meeting (Santa Clara, CA)	May 17, 2018 Jun 23, 2017
Great Lakes Analytics in Sports Conference (Stevens Points, WI) <i>NFL Player Evaluation Using Expected Points Added with nflscrapR</i>	Jul 13, 2017
UP-STAT (Buffalo, NY) <i>nflscrapR: An R Package for Easy Access to NFL Data and a New Model for Expected Points and Win Probability</i> Second Place, Best Young Researchers' Award in Category C: Application	Apr 22, 2017

Poster Presentations

eCOTS (Electronic posters) <i>Using text analysis to characterize student learning in an introductory statistics & data science course</i> <i>Identifying misconceptions of introductory data science using a think-aloud protocol</i> (Joint work with Sangwon Hyun, Philipp Burckhardt, Peter Elliott, Ciaran Evans, Kevin Lin, Amanda Luby, C. P. Makris, Jose Orellana, Alex Reinhart, Jerzy Wiecezorek, Gordon Weinberg, & Rebecca Nugent)	May 23, 2018
Pittsburgh ASA Chapter Spring Banquet (Pittsburgh, PA) <i>Variable Selection for Consistent Clustering</i>	Apr 14, 2018

	<p>Dietrich Undergraduate Colloquium (Pittsburgh, PA) Nov 6, 2015 <i>Improving Predictions of Ensemble Methods Using Distributions of Estimated Probabilities</i></p> <p>Meeting of the Minds (Pittsburgh, PA) May 6, 2015 <i>Classifying Kepler Objects of Interest</i> First Place, Statistics Poster Competition</p>						
PAPERS IN PROGRESS	<p>YURKO, R., VENTURA, S., AND HOROWITZ, M., “nflWAR: A Reproducible Method for Offensive Player Evaluation in Football” <i>Under Review</i>. arXiv:1802.00998.</p> <p>YURKO, R., NUGENT, R., VENTURA, S.L., “Variable Selection for Consistent Clustering”</p> <p>VENTURA, S.L., NUGENT, R., AND YURKO, R., “PREDS: Prediction with Ensembles using Distribution Summaries”</p>						
SOFTWARE	<p>R Packages</p> <p>Maksim Horowitz, Ronald Yurko, Samuel L. Ventura (2017). nflscrapR: Compiling the real-time NFL JSON API for easy use in R. R package version 1.0.</p> <p>Ronald Yurko (2018). nflWAR: An R package to compute WAR for offensive players using nflscrapR. R package version 1.0.</p> <p>Ronald Yurko (2018). fcscrapR: R package to scrape soccer commentary and statistics from ESPN. R package version 1.0.</p>						
TEACHING EXPERIENCE	<p>Carnegie Mellon University Pittsburgh, PA</p> <p>Graduate Teaching Assistant</p> <p>Assist students in lab session, host office hours, and grade for:</p> <table> <tr> <td>Statistical Graphics and Visualization</td><td>Summer 2018</td></tr> <tr> <td>Data Mining</td><td>Spring 2018</td></tr> <tr> <td>Statistical Computing</td><td>Fall 2017</td></tr> </table> <p>Instructor Spring 2015 & Fall 2015</p> <p>Course: Introduction to Sabermetrics & Exploring Baseball Data Lectured and created course materials</p> <p>Grader Spring 2015 & Fall 2015</p> <p>Courses: Introduction to Statistical Inference, Introduction to Probability Theory</p> <p>Undergraduate Teaching Assistant Fall 2013 to Fall 2014</p> <p>Course: Statistical Reasoning and Practice Assist students in Minitab lab sessions, grade homeworks and exams</p>	Statistical Graphics and Visualization	Summer 2018	Data Mining	Spring 2018	Statistical Computing	Fall 2017
Statistical Graphics and Visualization	Summer 2018						
Data Mining	Spring 2018						
Statistical Computing	Fall 2017						

PROFESSIONAL
SERVICE

Carnegie Mellon Baseball Analytics Workshop

Co-Organizer & Speaker

Apr 7, 2018

50+ attendees from academia, industry, and professional sports.
Responsibilities included creating and developing workshop material,
event/speaker/press management, marketing materials, budgeting,
coordinating Q&A session with professional baseball team,
and leading a live instructional coding demo

Carnegie Mellon Sports Analytics Conference

Program Committee

Oct 2017

170+ attendees from academia, industry, and professional sports. Responsibilities
included maintaining and assessing current research in field, event/speaker/press
management, marketing materials, budgeting

Reviewer:

Big Data

2017 to Present

DEPARTMENTAL
AND UNIVERSITY
SERVICE

Student Advisory Committee

Fall 2017 - Present

Cohort representative

Statistics in Sports Reading and Research Group

Fall 2017 - Present

Organizer of weekly reading and research group

Carnegie Mellon Sports Analytics Club

Graduate Student Advisor

2017 to Present

Co-Founder, Vice President, Editor, and Writer

2013 to 2016

Student-run sports statistics club

HONORS &
AWARDS

Honors

Andrew Carnegie Society Scholar
Carnegie Mellon University

2015

Phi Kappa Phi Honor Society
Carnegie Mellon University

2015

Honors courses: Mathematical Statistics Honors, Undergraduate Research Course
Department of Statistics & Data Science, Carnegie Mellon University

Awards & Academic Competitions

Second Place, Best Young Researchers' Award in
Category C: Application
UP-STAT

Apr 22, 2017

First Place, Statistics Poster Competition
Meeting of the Minds, Carnegie Mellon University

May 6, 2015

PREVIOUS RESEARCH EXPERIENCE	<p>Carnegie Mellon University Pittsburgh, PA</p> <p>Undergraduate Research Assistant Aug 2015 to Dec 2015 <i>PREDS: Prediction with Ensembles using Distribution Summaries</i> Supervisors: Samuel L. Ventura, Ph.D and Rebecca Nugent, Ph.D</p> <p>Undergraduate Research Course Jan 2015 to May 2015 <i>Classifying Kepler Objects of Interest</i> Supervisors: Rebecca Nugent, Ph.D and Peter E. Freeman, Ph.D</p> <p>Independent Research Aug 2014 to Dec 2014 <i>The Science of Fooling Batters: An Objective Analysis of Pitch Sequencing</i> Supervisor: Andrew C. Thomas, Ph.D</p>
INDUSTRY EXPERIENCE	<p>Analytics & Portfolio Management, PNC Financial Services Pittsburgh, PA</p> <p>Quantitative Analytics Intern and Associate Jun 2015 to Mar 2017 <i>Model Development Predicting Probability of Default and Loss Given Default</i> Preliminary methodology research, documentation preparation, data extraction, manipulation, and statistical modeling in R and SAS</p> <p>Baseball Operations, Pittsburgh Pirates Pittsburgh, PA</p> <p>Data and Analytics Intern Mar 2014 to Oct 2014 <i>Pitcher “Injury Zone” Analysis and Data Management</i> Ensure loading of data, distribute organizational reports, developed neural network and hazard model for assessing elbow injury risk</p>
PROFESSIONAL SOCIETIES	<p><i>American Statistical Association</i> <i>Society for American Baseball Research</i> <i>Classification Society</i></p>
COMPUTING SKILLS	<p><i>Programming Languages:</i> R, SAS, Python, SQL, L^AT_EX <i>Operating Systems:</i> MacOS, Windows</p>
ACTIVITIES	<p>Carnegie Mellon University Club Baseball Team 2013</p> <p>Carnegie Mellon University Intramural Sports: Flag football Basketball Softball</p>
PRESS	<p>“CMU alum, MLB stats expert to speak at sports analytics conference” Pittsburgh Post-Gazette Oct 27, 2017</p> <p>“Steelers fans should worry about Patriots RB Rex Burkhead. These CMU statisticians tell you why.” Pittsburgh Post-Gazette Aug 17, 2017</p>
REFERENCES	<p>Available upon request</p>