

# Dusty Turner

Data Analyst, Center for Army Analysis, Fort Belvoir, VA  
8109 Jeffrey Court, Fairfax Station, VA 22039

✉ [dusty.s.turner@gmail.com](mailto:dusty.s.turner@gmail.com) ☎ 830-285-5067 🌐 [dusty-turner](https://www.dustysturner.com)

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## Education

M.S., Integrated Systems Engineering, <i>The Ohio State University</i>	2016
Graduate Minor, Applied Statistics, <i>The Ohio State University</i>	2016
M.S., Engineering Management, <i>Missouri University of Science and Technology</i>	2012
B.S., Operations Research, <i>The United States Military Academy</i>	2007

## Academic Experience

Instructor and Assistant Professor, Department of Mathematical Sciences <i>United States Military Academy</i>	2016-2019
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## Awards

BG (Retired) Jack Murphy Pollin Award for Faculty Excellence, The United States Military Academy at West Point, 2019.  
Army Operations Research Symposium (AORS) Military Junior Analyst Award, 2019.

## Courses Taught

<b>West Point</b>	
MA206 - Introduction to Probability and Statistics (Summer)	2019
MA256 - Advanced Introduction to Probability and Statistics (Spring)	2019
MA388 - Sabermetrics (Spring)	2019
MA488 - Special Topics in Mathematics: Statistical Learning (Fall)	2018
MA256 - Advanced Probability and Statistics (Spring/Fall)	2018
MA388 - Sabermetrics (Spring)	2018
MA206x - Advanced Introduction to Probability and Statistics Pilot Course (Spring/Fall)	2017
MA103 - Mathematical Modeling and Introduction to Calculus (Fall)	2016

## Courses Directed

<b>West Point</b>	
MA256 - Advanced Introduction to Probability and Statistics (Spring/Fall)	2019
MA388 - (Assistant) Sabermetrics (Spring)	2019
MA206 - Introduction to Probability and Statistics (Summer)	2018
MA388 - (Assistant) Sabermetrics (Spring)	2018
MA256 - Advanced Introduction to Probability and Statistics (Spring/Fall)	2018
MA206x - Advanced Introduction to Probability and Statistics Pilot Course (Spring/Fall)	2017

## Short Courses

**MORS Tutorial** - Intermediate R (Data Manipulation, Visualization, and Modeling) (June) 2020

CAA - Introduction to R and Data Analysis (April/May)	2020
OS305 - Introduction to R for Intelligence Analysis (March)	2020
CAA - Introduction to R and Data Analysis (Oct/Nov)	2019
OS305 - Introduction to R for Intelligence Analysis (July)	2019

## Book Chapters

Cummiskey K, Pleuss J, Adams B, **Turner D**, Sulewski C, and Watts K. (2019) An undergraduate statistics project to develop statistical thinking and effective writing. *Teaching and Learning the West Point Way* (Under Review)

## Refereed Publications

Cummiskey K, Adams B, Pleuss J, **Turner D**, Clark N, Watts K. (2019) Causal Inference in Introductory Statistics Courses. *Journal for Statistics Education*. [Link](#)

Long JD, **Turner D**, (2019) Applied R in the Classroom. *Australian Economic Review*. [Link](#)

**Turner D**, Pleuss J, Collins C. (2020) The Impact of Academically Homogeneous Classrooms. *PRIMUS*. [Link](#) [Link](#)

Sesti J, Sikora T, **Turner D**, Turner A, Langan R, Nguyen Andrew, Paul S. (2019) Disparities in Follow-Up After Low-Dose Lung Cancer Screening. *Seminars in Thoracic and Cardiovascular Surgery* [Link](#)

Thomas D, Clark N, **Turner D**, Siu C, Halliday T, Hannon B, Kahathuduwa C, Kroeger C, Zoh R, Allison D. (2019) Best (but oft-forgotten) practices: identifying and accounting for regression to the mean in nutrition and obesity research, *The American Journal of Clinical Nutrition*, [Link](#) | [Link](#)

Bigelman K, East W, Thomas D, **Turner D**, Hertling M. (2019) The New Army Combat Fitness Test: An Opportunity to Improve Recruitment and Retainment. *Obesity* [Link](#) | [Link](#)

Lindquist J, Peng D, Rochelle S, **Turner D**, Warshaw M. (2019). Effective Use of Public Perceptions in Assessments. *The Journal of Defense Modeling and Simulation*, 16(4), 285–295. [Link](#) | [Link](#)

**Turner, D**, Costa, G. (2019) Yankees or Mets... Who Owns New York City? *The Baseball Research Journal* [Link](#)

Thomas D, Clark N, **Turner D**, Siu C, Halliday T, Hannon B, Kahathuduwa C, Kroeger C, Allison, D. (2018) Identifying if Regression to the Mean is a Problem in a Study. *IUScholar Works*. [Link](#)

Garrett M, Kuiper P, Hood K, **Turner D**. (2018) Leveraging Mutual Information to Generate Domain Specific Lexicons. *Social Computing, Behavioral-Cultural Modeling & Prediction and Behavior Representation in Modeling and Simulation*. [Link](#)

Alex J, **Turner D**, Thomas D, McDougall A, Halawani M, Heymsfield S, Martin C, Scisco J, Salley J, Muth E, Hoover E. (2018) Bite count rates in free-living individuals: New insights from a portable sensor. *BMC Nutrition*. [Link](#)

## Works Under Review

Ducharme S, **Turner D**, Pleuss J, Aguiar E. (2019) Run to Walk Cadence for Minors. *Journal for the Measurement of Physical Behavior*. (Under Review)

Voss J, Dhurandhar N, **Turner D**, (2019) Weight Gain Adverse Events in Multiple Drugs. (Under Review)

## Technical Reviews

Luraschi J, Kuo K, Ruiz E. 2019. Mastering Spark with R: The Complete Guide to Large-Scale Analysis and Modeling. O'Reilly Media Inc.

Long J, Teetor P. 2019. R Cookbook (2nd ed.). O'Reilly Media Inc.

## Conference Proceedings

Lindquist J, Peng D, Rochelle S, **Turner D**, and Warshaw M. (2018) Best Practices for Eliciting Public Perceptions in Conflict Environments – Working Group Summary, Proceedings of the MORS Special Session on Assessment of Named Operations, MacDill AFB, FL. [Link](#) | [Link](#)

**Turner D**, Hood K, Kuiper P, Lindquist J. (May 2018) “Sentiment Analysis in a Restricted Operational Environment” Proceedings of the *NATO Big Data and Artificial Intelligence for Military Decision Making*. Bordeaux, France 30MAY-1JUN2018 [Link](#)

## Peer Reviewed Conference Abstracts

Ploch C, **Turner D**, Adams B, Hug A, Suby J, Palmer J, Thomas D, Bigelman K. Prediction of Cadet Basic Training Physical Performance Outcomes. *Experimental Biology* 2018.

## Works In Progress

Warnke Scott, **Turner D**, Costa G. The More The Classroom Changes, The More Baseball Remains The Same.

Previte P, **Turner D**, Baller D, Pulleyblank B. (2019) Introducing the Anti-Cycle.

## Presentations

Chapman C, Drake M, Ehlers C, Helms J, Jackson S, Minor Kyle, **Turner D**, Ward R, Zuber M. (2020). “COVID Modeling at CAA” *Military Operations Research Symposium Special Session*, New London, CT (Virtual due to COVID-19). [Link](#)

**Turner D**, Adams B, Scioletti M, Thomas D. (2020). “Injury Detection in Cadet Basic Training” *Military Operations Research Symposium*, New London, CT (Virtual due to COVID-19). [Link](#)

**Turner D**, Kuhn M (2019). “Introducing Tidymodles.” *MORS Emerging Techniques Forum*, Alexandria, Virginia. [Link](#)

Pleuss James, **Turner D** (2018). “The Effect of Academically Homogeneous Classrooms in Undergraduate Statistics Education.” *Joint Statistical Meetings*, Vancouver, Canada.

**Turner D**, Pleuss J (2018). “Modeling Undergraduate Statistics Performance” *Joint Statistical Meetings*, Vancouver, Canada. [Link](#)

**Turner D**, Hood K, Kuiper P, Lindquist J (2018). “Machine Learning, Artificial Intelligence, and Sentiment Analysis in Restricted Operating Environments” *NATO Information Systems and Technology Specialists’ Meeting on Big Data and Artificial Intelligence for Military Decision Making*, Bordeaux, France. [Link](#)

**Turner D** (2018). “Modeling the 2018 Men’s NCAA Tournament” *West Point Sports Analytics Club*, West Point, New York. [Link](#)

**Turner D** (2018). "Putting the R in USMA: Teaching Statistics in an Academically Homogeneous Classroom" Invited Presentation at the *New York R Conference*, New York City, New York. [Link](#)

**Turner D** (2018). "Web Scraping in R" *Center For Data Analysis Lecture Series*, West Point, New York. [Link](#)

**Turner D**, Hood K, Kuiper P, Lindquist J, Risius D (2018). "Public Perception to the Government Response to Hurricane Maria in Puerto Rico." Presentation at the *Military Operations Research (MORS) Assessments Special Session*, McDill Air Force Base, FL. [Link](#)

**Turner, D** (2017). Data Scraping in R. Presentation at the *Military Operations Research Symposium (MORS)*, West Point, NY. [Link](#)

## Statistical Consulting Activity (Partial List)

Assistant Director, Center for Data Analysis and Statistics (CDAS) 2016-2019

**United States Military Academy Clients** 2016-2019

Director of Admissions: Visualizing Minority Cadets by Congressional District

Director of Admissions: Analysis of Altering Early Admissions Criteria for Corps Squad Athletes

Public Affairs Office: Analysis of Social Media Trends Impacting the Academy [Shiny App](#)

STEM Middle School Outreach: Created Application To Support Communication Between

Administrators and Parents. [Shiny App](#)

**Novartis**: Developed statistical models and provided statistical analysis related to a weight loss compound. Updated an interdisciplinary team of investigators on progress through weekly calls. June 2017-June 2018

**RWJ Barnabas Health**: Analysed Procalcitonin/Esophagectomy leak relationship. 2017-2019

**Bear Mountain Bakery**: Conducted analysis to help owners better understand their clients, products, and what conditions lead to a drops and spikes in sales. February 2019

## Peer Professional Development

Center for Army Analysis Tutorial (CAA): Git and Gitlab for beginners December 2019

CAA Tutorial: Tweet Clasification in R January 2019

CAA / TRAC White Sands Tutorial: Tidy Modeling in R Part 1 February 2019

## Professional Memberships

Army Operations Research Society (AORS) 2019

Society for American Baseball Research (SABR) 2018

American Statistical Association (ASA) 2018

Military Operations Research Society (MORS) 2018

Pi-Mu-Epsilon 2016

Phi-Kappa-Phi 2016

New York Open Statistical Meetup 2016

## Faculty Development

Member | Department of Mathematical Sciences Book Club

Member/Presenter | Bi-Weekly Statistics Lunch

Member | Bayesian Data Analysis Seminar Series

Presenter/Panelist | New Faculty Development Workshop

## Student Research

Co-Adviser, Honors Thesis.

Previte, Peter, "The Anti-Cycle" Data Analysis and Baseball (2018/2019)

Nicosia, Gino, Modeling the 2019 NCAA Basketball Tournament (2018/2019)

Palmer, James, ACT Impact of Admissions into the United States Military Academy (2018/2019)

McCusker, Caroline, Prep School and Success at the United States Military Academy (2018/2019)

Haley Conger, SAT Impact of Admissions into the United States Military Academy (2018/2019)

Stockdale, John, Predicting Physical Performance Success at West Point (2017/2018)

McDermott, Stephanie, A Statistical Analysis of MA104 Performance (2017/2018)

Co-Adviser, Capstone

Martinez, Michael, Standardized Test Scores and the Relationship With Plebe Math Scores (2018/2019)

Ryu, Eric, QB ISO: An Objective Approach to NFL Quarterback Rating (2017/2018)

## Student Development Service

Head Officer In Charge, Veritas Forum 2017-2019

Head Officer In Charge, Sports Analytics Club (Informal) 2017-2019

Leadership Mentor for 32 Cadets, Psychology for Leaders 2017-2019

Officer Representative, Officer Christian Fellowship (OCF) Club 2016-2019

Sponsor for 25 Cadets, Fourth Class Sponsorship Program 2016-2019

Academic Officer In Charge 2016-2019

Cadet Team Adviser, Interdisciplinary Contest in Modeling 2016

## Hosted Seminars

James Long, *Modeling, Mistakes, and Madness*, MA256/MA206 Course Lecture, April 2019.

David Dudrick, *Nietzsche was Right: the Christian Grounding of Our Morality*, Veritas Forum. February 2019.

Hadley Wickham, *Interdiction to the Data Analysis*, Center for Data Analysis Speaker Series and MA256 Course Lecture. October 2018.

Max Kuhn, *Applied Predictive Modeling*, Center for Data Analysis Speaker Series and MA256/MA206 Course Lecture. September 2018.

David Robinson, *Text Analysis: The Tidy Way*, Center for Data Analysis Speaker Series and MA256 Course Lecture. April 2018.

Vince Vitale, *Why Suffering?*, Veritas Forum. February 2018.

James Long, *Picking an analysis tool: how to recognize the limits of your tools*, Center for Data Analysis Speaker Series and MA388 Course Lecture. February 2018.

Emily Robinson, *A/B Testing in the Wild*, Center for Data Analysis Speaker Series and MA206x Course Lecture. October 2017.

Jared Lander, *R For Everything*, Center for Data Analysis Speaker Series. September 2017.

## Institutional Service

The Junior Military Counsel to the Superintendent 2016-2019

Superintendent's Transition Team 2018

Incoming Class Summer Assessment Testing Volunteer 2018

Developer of curriculum and student selection for first USMA course in advanced introduction to statistics	2016-2019
Developer of curriculum and planning for Statistics and Data Science Major at USMA	2018-2019

### Professional Service

Peer Reviewer, Journal of Defense Modeling and Simulation	2019
Functional Area 49 Recruiting Committee	2018-Present

### Community Service

Assistant Youth Baseball Coach	2019
Assistant Youth Soccer Coach	2017-2019
Assistant T-Ball Coach	2016-2019

### Selected Military Service

Fort Belvoir, Virginia	2019-Present
<b>Data Scientist / ORSA</b> , Center for Army Analysis	
White Sands Missile Range, New Mexico	2012-2014
<b>Company Commander</b> , 40th Mobility Augmentation Company	
<b>Plans Officer</b> , 2nd Engineer Battalion	
Schofield Barracks, Hawaii	
<b>Chief of Operations</b> , 65th Engineer Battalion	2008-2011
<b>Executive Officer</b> , 34th Sapper Company	
<b>Platoon Leader</b> , 70th Geospatial Company	

### Deployments

Operation Iraqi Freedom, Taji, Iraq	2008-2009
Operation Enduring Freedom, Ghazni, Afghanistan	2013

### Selected Military Awards

Bronze Star  
 Purple Heart  
 Meritorious Service Medal  
 Army Commendation Medal (2 Oak Leaf Clusters)  
 Army Achievement Medal (1 Oak Leaf Cluster)