

WADE K. COPELAND

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OBJECTIVE

I am a hard-working professional seeking to utilize mathematics, statistics, and computer programming to solve interesting problems.

PROFESSIONAL STRENGTHS

- Expertise in statistical methods, including topics in estimation, hypothesis testing, linear modeling, multivariate modeling, nonparametric methods, computer-intensive methods, and supervised and unsupervised machine learning.
- Expert statistical programmer in R.
- Ability to use computational resources to process and analyze big data.
- Fluent using exploratory data analysis techniques to illustrate and explain complex data structures.
- Production of final reports that are management friendly, aesthetically pleasing, and adherent to reproducibility standards using inline code with RMarkdown or Knitr/Sweave.
- Successful in working with interdisciplinary teams of different nationalities, cultures, and beliefs.

PROFESSIONAL EDUCATION AND CERTIFICATES

Master of Science Degree with a Major in Statistics from the University of Idaho, Moscow Idaho, in May 2011 (GPA 3.65)

Master's Thesis: Microbial Community Analysis Graphical User Interface, mcaGUI. An open-source project freely available through Bioconductor at <http://www.bioconductor.org/packages/release/bioc/html/mcaGUI.html>

Bachelor of Science Degree with a Major in Mathematics from the University of Idaho, Moscow Idaho, in May 2008 (GPA 3.64)

PROFESSIONAL EXPERIENCE

Department of Defense Office of Inspector General April 2021 – Present
Mathematical Statistician Alexandria, VA

- Statistician supporting audits and criminal investigations.

Amazon.com - Prime Gaming June 2020 – November 2020
Data Scientist Seattle, WA

- Provided statistical support for the business through consulting, AB testing, and offer demand forecasting.

Institute for Research and Education to Advance Community Health January 2018 – May 2020
Biostatistician Seattle, WA

- Faculty in the Community Health program at Washington State University supporting ground-up biostatistics methods for various projects from applying for funding to project end.
- Responsible for methods supporting causal effect estimation and inference in randomized controlled trials.

Fred Hutchinson Cancer Research Center December 2011 – April 2017
Statistical Research Associate Seattle, WA

- Biostatistician and R/SAS programmer for various projects in microbial ecology, cancer prevention, solid tumor research, and public health sciences.

- Focus on high-dimensional data analysis techniques using penalized and kernel regression methods as well as various eigenvector methods such as principal component analysis and multidimensional scaling.
- Work on large scale genome-wide association studies specializing in high-throughput and parallel processing for the analysis of large data sets (upwards of one terabyte flat files and databases).
- Specialization in various -omics, including genomics (SNP, gene expression, and copy number variation), metabolomics, epigenomics, and metagenomics (16S and functional analysis).
- Integration and analysis of public health data from disparate sources, including survey data, accelerometer, pharmacokinetic, and biomarkers.

Initiative for Bioinformatics and Evolutionary Studies

August 2009 – May 2011

Graduate Research Assistant

Moscow, ID

- Lead programmer for the development of an R-based graphical user interface for the analysis of microbial communities.
- Developed application-based methods to apply time series analysis to aligned sequence data, focusing on multivariate data structures.
- Participated in theory- and application-based research in the development of Bayesian methods for the analysis of Terminal Restriction Fragment Length Polymorphisms.

PROFESSIONAL INTERNSHIPS

University of Idaho Department of Statistics

August 2010 – December 2010

Experimental Design Assistant Lecturer

Moscow, ID

- Assisted with the instruction of Statistics 507, Experimental Design. Responsible for teaching advanced statistical programming using the SAS software package.

University of Idaho Statistics Consulting Center

January 2010 – May 2010

Statistical Consultant

Moscow, ID

- Responsible for providing statistical advice at all experimental stages, including experimental design and identifying appropriate data analysis techniques to answer research hypotheses.

PROFESSIONAL APPLICATIONS

Statistical Programming	R, SAS
Computational Resources	Amazon Web Services – Lightsail, EC2, SageMaker
Version/Source Control	Git
Document Markup	L ^A T _E X, Markdown, Microsoft Word
Database	Excel, Microsoft Access, REDCap, SQL
Email	Microsoft Outlook, Google Mail
Presentations	Beamer, PowerPoint
Operating Systems	Mac OS, Windows, Linux/Unix Terminal
Web Development and Administration	HTML, CSS

PUBLICATIONS

- Angie Ulrich, Yamile Molina, Katherine J Briant, Lynn E Onstad, **Copeland, Wade**, Sarah E Holte, and Beti Thompson. Stress among latinos: Does it vary by occupation and agricultural season? *Journal of occupational and environmental medicine*, 2018.
- Timothy W Randolph, Sen Zhao, **Copeland, Wade**, Meredith Hullar, Ali Shojaie, et al. Kernel-penalized regression for analysis of microbiome data. *The Annals of Applied Statistics*, 12(1):540–566, 2018.
- Charleen D Adams, Kristina M Jordahl, **Copeland, Wade**, Dana K Mirick, Xiaoling Song, Cassandra L Sather, Karl Kelsey, Andres Houseman, Scott Davis, Timothy Randolph, et al. Nightshift work, chronotype, and genome-wide dna methylation in blood. *Epigenetics*, 12(10):833–840, 2017.

- L.K. Ko, M. Petrescu-Prahova, P. Moran, D. Reuland, E. Rodriguez, J. Yoon, and **Copeland, W.K.** Cancer communication among hispanic patients and their social networks, 2017. Poster presented at the 41st Annual Meeting American Society of Preventive Oology in Seattle, WA. March 11, 2017.
- Jonathan B Bricker, **Copeland, Wade**, Kristin E Mull, Emily Y Zeng, Noreen L Watson, Katrina J Akioka, and Jaimee L Heffner. Single-arm trial of the second version of an acceptance & commitment therapy smartphone application for smoking cessation. *Drug and Alcohol Dependence*, 2016.
- Linda K Ko, Edgar Rodriguez, Jihye Yoon, Rekha Ravindran, and **Copeland, Wade K.** A brief community-based nutrition education intervention combined with food baskets can increase fruit and vegetable consumption among low-income latinos. *Journal of Nutrition Education and Behavior*, 2016.
- Heidi M Tham, Sarah Hohl, **Copeland, Wade**, Katherine J Briant, Leticia Márquez-Magaña, and Beti Thompson. Enhancing biospecimen knowledge among health care providers and representatives from community organizations. *Health promotion practice*, page 1524839916641069, 2016.
- Emily Y Zeng, Jaimee L Heffner, **Copeland, Wade K**, Kristin E Mull, and Jonathan B Bricker. Get with the program: Adherence to a smartphone app for smoking cessation. *Addictive Behaviors*, 63:120–124, 2016.
- Katherine Josa Briant, Noah Espinoza, Avigail Galvan, Elizabeth Carosso, Nathan Marchello, Sandra Linde, **Copeland, Wade**, and Beti Thompson. An innovative strategy to reach the underserved for colorectal cancer screening. *Journal of Cancer Education*, 30(2):237–243, 2015.
- Meredith AJ Hullar, Samuel M Lancaster, Fei Li, Elizabeth Tseng, Karlyn Beer, Charlotte Atkinson, Kristiina Wähälä, **Copeland, Wade K**, Timothy W Randolph, Katherine M Newton, et al. Enterolignan-producing phenotypes are associated with increased gut microbial diversity and altered composition in premenopausal women in the united states. *Cancer Epidemiology Biomarkers & Prevention*, 24(3):546–554, 2015.
- Catherine Duggan, Elizabeth Carosso, Norma Mariscal, Ilda Islas, Genoveva Ibarra, Sarah Holte, **Copeland, Wade**, Sandra Linde, and Beti Thompson. Peer reviewed: Diabetes prevention in hispanics: Report from a randomized controlled trial. *Preventing chronic disease*, 11, 2014.
- Susan D Reed, Johanna W Lampe, Conghui Qu, **Copeland, Wade K**, Gabrielle Gundersen, Sharon Fuller, and Katherine M Newton. Premenopausal vasomotor symptoms in an ethnically diverse population. *Menopause*, 21(2):153–158, 2014.
- S Shiovitz, **Copeland, WK**, MN Passarelli, AN Burnett-Hartman, WM Grady, JD Potter, S Gallinger, DD Buchanan, C Rosty, AK Win, et al. Characterisation of familial colorectal cancer type x, lynch syndrome, and non-familial colorectal cancer. *British journal of cancer*, 111(3):598–602, 2014.
- Beti Thompson, Hugo Vilchis, Crystal Moran, **Copeland, Wade**, Sarah Holte, and Catherine Duggan. Increasing cervical cancer screening in the united states-mexico border region. *The Journal of Rural Health*, 30(2):196–205, 2014.
- Yu Chen, **Copeland, Wade K**, Rajesh Vedanthan, Eric Grant, Jung Eun Lee, Dongfeng Gu, Prakash C Gupta, Kunnambath Ramadas, Manami Inoue, Shoichiro Tsugane, et al. Association between body mass index and cardiovascular disease mortality in east asians and south asians: pooled analysis of prospective data from the asia cohort consortium. *Bmj*, 347:f5446, 2013.
- SD Reed, JW Lampe, C Qu, G Gundersen, S Fuller, **Copeland, WK**, and KM Newton. Self-reported menopausal symptoms in a racially diverse population and soy food consumption. *Maturitas*, 75(2):152–158, 2013.
- Copeland, Wade K**, Vandhana Krishnan, Daniel Beck, Matt Settles, James A Foster, Kyu-Chul Cho, Mitch Day, Roxana Hickey, Ursel ME Schütte, Xia Zhou, et al. mcagui: microbial community analysis r-graphical user interface (gui). *Bioinformatics*, 28(16):2198–2199, 2012.
- Copeland, Wade K.** Microbial community analysis graphical user interface: Mcagui. Master’s thesis, University of Idaho, 2011.

Copeland, Wade K, Vandhana Krishnan, Daniel Beck, Matt Settles, James Foster, Kyu-Chul Cho, Mitch Day, Roxana Hickey, Ursel ME Schütte, Xia Zhou, et al. An introduction and user guide for mcagui. 2011.