

# WADE K. COPELAND

## OBJECTIVE

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

## PROFESSIONAL STRENGTHS

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- Expert programmer in R and adept at statistical programming in Python.
- Accomplished in experimental statistics including topics in sampling, estimation, and hypothesis testing.
- Proficient in supervised and unsupervised machine learning methods including topics in parametric statistics, nonparametric statistics, clustering, dimension reduction, and neural networks.
- Fluent using exploratory data analysis techniques to illustrate and explain complex data structures.
- Skilled at producing highly polished reports using Markdown and interactive web applications using R and Python Shiny.

## PROFESSIONAL EDUCATION AND CERTIFICATES

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

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

## PROFESSIONAL EXPERIENCE

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**Department of Defense Office of Inspector General**  
*Mathematical Statistician*

April 2021 – Present  
*Alexandria, VA*

- Statistician supporting audits, evaluations, and criminal investigations.
- Led the oversight efforts aimed at improving improper payment estimation for the Department of Defense.
- Furthered the DoD OIG oversight mission by creating internal analytics tools for tests of internal control effectiveness, entity resolution, and geocoding.

**Institute for Research and Education to Advance Community Health**  
*Biostatistician*

January 2018 – May 2020  
*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**  
*Statistical Research Associate*

December 2011 – April 2017  
*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**

*Graduate Research Assistant*

August 2009 – May 2011

*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 APPLICATIONS**

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<b>Statistical Programming</b>	R, Python, SAS
<b>Version Control</b>	Git, SharePoint
<b>Document Markup</b>	L <sup>A</sup> T <sub>E</sub> X, Markdown, Word
<b>Database</b>	SQL, Excel
<b>Email</b>	Outlook, Google Mail, Apple Mail
<b>Presentations</b>	Beamer, PowerPoint
<b>Operating Systems</b>	MacOS, Windows, Ubuntu Linux, Alpine Linux
<b>Web Applications</b>	HTML, CSS, R Shiny, Python Shiny