

Garrick Aden-Buie Data Scientist

Motivated, life-long learner. Always looking for questions and answers in the data. Passionate about collaboration, sharing knowledge, and communicating insights. Known as a highly organized, perceptive, and resourceful team player.

ABOUT

garrickadenbuie.com
garrick@adenbuie.com
(727) 344-9568
St. Petersburg, Florida (US)
GitHub: [gadenbuie](https://github.com/gadenbuie)
Twitter: [grrrck](https://twitter.com/grrrck)

LANGUAGES

English (Native)
Spanish (Superior ACTFL/ETS)

SKILLS

ADVANCED

R
Shiny
Git
RMarkdown
R Package Development
Database Management
SQL (MySQL, SQLite, Postgres)
Commandline Scripting (Bash)
HTML
CSS
MS Office (Excel, etc.)

INTERMEDIATE

Python
JavaScript
PHP
MQTT

FAMILIAR

Julia
Go

OPERATING SYSTEMS

Linux (Debian, Ubuntu, Other)
macOS
Amazon AWS
Google Cloud
Docker
Windows

EDUCATION

University of South Florida

2012 — 2018

MSIE (2014), Ph.D. Candidate (exited ABD), Industrial & Mgmt. Systems Engineering

Courses: Deep Learning, Statistical Design Models, Large-Scale Optimization, Advanced Analytics, Bayesian Data Analysis

Universidad Autónoma de Madrid and Syracuse University in Madrid

2005 — 2006

Study Abroad, Spanish

Lehigh University

2002 — 2007

B.S. Applied Math, B.A. Spanish, Physics (minor)

PROFESSIONAL EXPERIENCE

Research Data Analyst II (Bioinformatics)

Present

Moffitt Cancer Center

Gerke Lab, Cancer Epidemiology

Conducted advanced bioinformatic and statistical analyses in support of cancer epidemiology research. Developed several R packages and worked with diverse data systems architects to coordinate development efforts throughout the data lifecycle. Applied novel analytic approaches and software pipelines to multiplex immunohistochemistry data.

- Designed and developed a Shiny dashboard interface with companion R package for analysis of the FCDS Florida Cancer Registry data
- Created and led an in-depth course on data processing with R for data analysts in Moffitt's Collaborative Data Services Core
- Awarded internal \$50,000 grant as Co-PI with Dr. Gerke to develop DV3, a framework for data virtualization, visualization and versioning

Project Coordinator and Research Associate

Jan 2018

University of South Florida

Sep 2014

usf.edu/engineering/create-health/

Led diverse team of Ph.D., masters and undergraduate students in development and evaluation of large smart home project for monitoring the daily activities of community-dwelling, independent older adults.

- Managed 3 Ph.D., 5 Masters, and 4 undergraduate REU students
- Lead software developer for remote sensor data collection, processing, storage, administration, and visualization
- Developed several R packages and Shiny dashboards and interactive front-ends for inventory management and data processing
- Provisioned and administered database and backend servers supporting remote data collection systems running on Raspberry Pis
- Designed and implemented notification microservice for near-real-time evaluation and alerting for emergent conditions

R Package Developer: MCTestAnalysis

Mar 2017

University of South Florida

Jul 2016

gadenbuie.github.io/mctestanalysis/

Developed an R package for Multiple-Choice Test Analysis for educators who are not comfortable programming. The package includes a web interface for interactive exploration of test results, or a generated report based on best practices for the design and evaluation of multiple-choice tests.

Research Assistant

Sep 2014

Patel College of Global Sustainability

Jun 2012

Industrial Engineering and Management Sciences, University of South Florida

Assisted the Director of the Office of Sustainability. Coordinated, analyzed and prepared reports on campus sustainability-related initiatives. Supported industrial engineering education and research at USF.

AWARDS

Runner Up, Shiny App Contest

Apr 2019

RStudio

Selected as one of 10 developers from 136 submissions in recognition of a web app and dashboard built using the R-Shiny framework. The dashboard monitors social media conversations around a conference or event, and received hundreds of visitors per day during RStudio's annual conference in January 2019.

PROJECTS

Scientific Software

- [fcds](https://gerkelab.github.io/fcds) — gerkelab.github.io/fcds
An R package and Shiny web application for the analysis of Florida Cancer Registry data from the [Florida Cancer Data System](#)
- ShinyDAG — gerkelab.com/project/shinydag
A web application for building, analyzing, and visualizing directed acyclic graphs (DAGs)
- epiTAD — gerkelab.com/project/epiTAD
A web application for visualizing chromosome conformation capture data in the context of genetic epidemiology

Open Source Software

I enjoy contributing to open source software projects and whenever possible I contribute to the R packages that I use. I also have released the following software packages for R on GitHub:

- xaringanther: pkg.garrickadenbuie.com/xaringanther
- regexplain: garrickadenbuie.com/project/regexplain/
- ggpomological: garrickadenbuie.com/project/ggpomological
- countdown: pkg.garrickadenbuie.com/countdown
- MCTestAnalysis: github.com/gadenbuie/MCTestAnalysis

SELECTED PUBLICATIONS

- epiTAD: a web application for visualizing chromosome conformation capture data in the context of genetic epidemiology 2019
Bioinformatics
Creed J, Aden-Buie G, Monteiro A, Gerke TA
- Prostate-specific antigen (PSA) levels in men 60 to 70 years of age predict aggressive prostate cancer in the PLCO cancer screening trial: Implications for risk-stratified screening 2019
European Association of Urology Congress: Mar 15–19; Barcelona, Spain.
Berger A, Aden-Buie G, Kibel AS, Mucci LA, Penney K, Wilson K, Gerke TA, Preston M
- Accessible pipeline for translational research using TCGA: Tristetraprolin as an example relating gene mechanism to a disease specific outcomes 2018
TCGA Legacy: Multi-Omic Studies in Cancer, Sep 27-29; Washington, DC
Berglund A, Putney R, Creed J, Aden-Buie G, Gerke T, Rounbehler R
- Rough Set Theory Based Prognostic Classification Models for Hospice Referral 2015
BMC Medical Informatics and Decision Making
Gil-Herrera E and Aden-Buie G, Yalcin A, Tsalatsanis A, Barnes LE, Djulbegovic B

SELECTED PRESENTATIONS

- A Gentle Guide to the Grammar of Graphics with ggplot2 2018-11-06
Workshop on Data Analysis Using R (ASA at USF)
garrickadenbuie.com/talk/gentle-ggplot2
- The Passive Smart Home: Unobtrusive At-Home Behavior Monitoring 2018-10-29
Utilizing Technology for Data Collection and Intervention, Moffitt Cancer Center
garrickadenbuie.com/slides/moffitt-passive-smart-home/
Aden-Buie G
- Unsupervised behavior change detection using passive sensor systems in the homes of older adults 2018-05-07
11th World Conference of Gerontechnology
garrickadenbuie.com/talk/isg-2018/
Aden-Buie G, Yalcin A, VandeWeerd C
- Occupant Activity Profiles from Smart Home Sensor Event Streams 2017-10-25
INFORMS Annual Meeting
garrickadenbuie.com/talk/informs-2017/
Aden-Buie G, Yalcin A, VandeWeerd C

VOLUNTEER EXPERIENCE

- President, INFORMS Student Chapter at USF 2014 — 2015
Served as President of the USF student chapter of INFORMS, the leading international association for Operations Research and Analytics professionals.
- Started a student-led monthly journal club to share and disseminate cutting-edge publications in statistics, machine learning, and operations research.
 - Organized and led a university-wide INFORMS@USF Code & Data Bootcamp for undergraduate and graduate students, featuring hands-on learning of data science and programming principles. Personally led multiple sessions on data science with R.