

# Michael Mullarkey Principal Data Scientist April 2021

Lab for Scalable Mental Health

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# About me -

Michael is a clinical psychology PhD with expertise in data science and scaling mental health supports.

### Education

2014-2020 PhD - Clinical Psychology University of Texas at Austin

2011-2013 MA - Clinical Psychology American University

2008-2011 BA - Psychology American University

#### Work Experience

2020- Principal Data Scientist Lab for Scalable Mental Health

2019- Consulting Data Scientist Institute for Mental Health Research

2019-2020 Data Scientist Lab for Scalable Mental Health

## Selected Projects

- Created an automated screener for suicidality in text data using boosted tree and neural network models that saved 20 hours of "by hand" work per week: Link to Code on Github
- Developed a scalable time series forecasting pipeline using tsfresh feature engineering and a random forest algorithm versatile enough to be used across multiple organizations: Link to Code on Github
- Designed, engineered, and analyzed multiple nationwide (USA) A/B tests for scalable mental health supports that improved mental health 3 months later in teenagers: Link to Code on OSF
- Built a Shiny dashboard to track available data for mission-critical projects according to stakeholder identified criteria, used at least once weekly within the organization: Link to Code on Github
- Gave invited presentations at national conferences on how to create reproducible workflows that resulted in a >90% sign-up rate for reproducible workflow tools: Link to Presentation Slides

# Skills

- Expert in R and RStudio (tidyverse, tidymodels, torch, Shiny, R Markdown)
- Familiar with Python (NumPy, Pandas, Scikit-learn, Keras, TensorFlow)
- Familiar with SQL
- · Git and Github
- · Time Series Forecasting
- · Multivariate Data Analysis

#### Other Information

- I have published >20 technical papers, cited nearly 1,000 times
- I have written two open source mental health treatment manuals that have been downloaded >1,500 times (including a Dutch translation)
- I co-wrote a mental health workbook for teens that debuted as the #1 new release in the teen/young adult mental health category on Amazon
- I stream live data science on Twitch
- I created this resume using the vitae package in R, and my code is available here
- My cat Boo helps me code because her code review respects piping