Michael Mullarkey

Director of Data Science

March 2022

- 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.

Work Experience

2021-	Director of Data Science	Lab for Scalable Mental Health
2020-2021	Principal Data Scientist	Lab for Scalable Mental Health
2019-2020	Consulting Data Scientist	Institute for Mental Health Research
2019-2020	Data Scientist	Lab for Scalable Mental Health

Education

2014-2020	PhD - Clinical Psychology	University of Texas at Austin
2011-2013	MA - Clinical Psychology	American University
2008-2011	BA - Psychology	American University

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 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 | Link to Shiny App
- 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/RStudio (tidyverse, tidymodels, ggplot2, Shiny, R Markdown)
- Expert in experimentation, regression, and multilevel models
- Expert in managing multiple simultaneous projects
- Familiar with Python (numpy, pandas, scikit-learn, keras, TensorFlow)
- Familiar with causal inference (DAGs, propensity score matching)
- Familiar with SQL
- Familiar with git and Github
- Familiar with time series forecasting

Other Information

- Published >20 technical papers, cited > 1,300 times
- Wrote two open source mental health treatment manuals that have been downloaded >1,500 times (including a Dutch translation)
- 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
- Placed 2nd in the regular season of SLICED, a live-streamed data visualization and machine learning competition on Twitch