Michael Mullarkey

Director of Data Science

January 2022

- Lab for Scalable Mental Health
- mcmullarkey.github.io
- mullarkey.mike@gmail.com
- mcmullarkey

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
	• Lead all data science efforts	
2020-2021	Principal Data Scientist	Lab for Scalable Mental Health
	• Build machine learning models	
2019-2020	Consulting Data Scientist	Institute for Mental Health Research
	• Create time series forecasting data products	
2019-2020	Data Scientist	Lab for Scalable Mental Health
	• Design & optimize A/B testing	

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

- Languages/Environments: R/RStudio (tidyverse, tidymodels, ggplot2, Shiny, R Markdown), Python (numpy, pandas, scikit-learn, keras, TensorFlow), SQL, git, Github, Dart, Flutter
- Techniques: multivariate data analysis, regression, classification, time series forecasting, experimentation, machine learning
- Soft Skills: Managing multiple simultaneous projects, communicating with technical and non-technical stakeholders, translating complex business problems into actionable data science products

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