

MindArch Health

Keerthana Dutta, Laura Salinas Perez, Prabhakar Pandey



The Kickoff

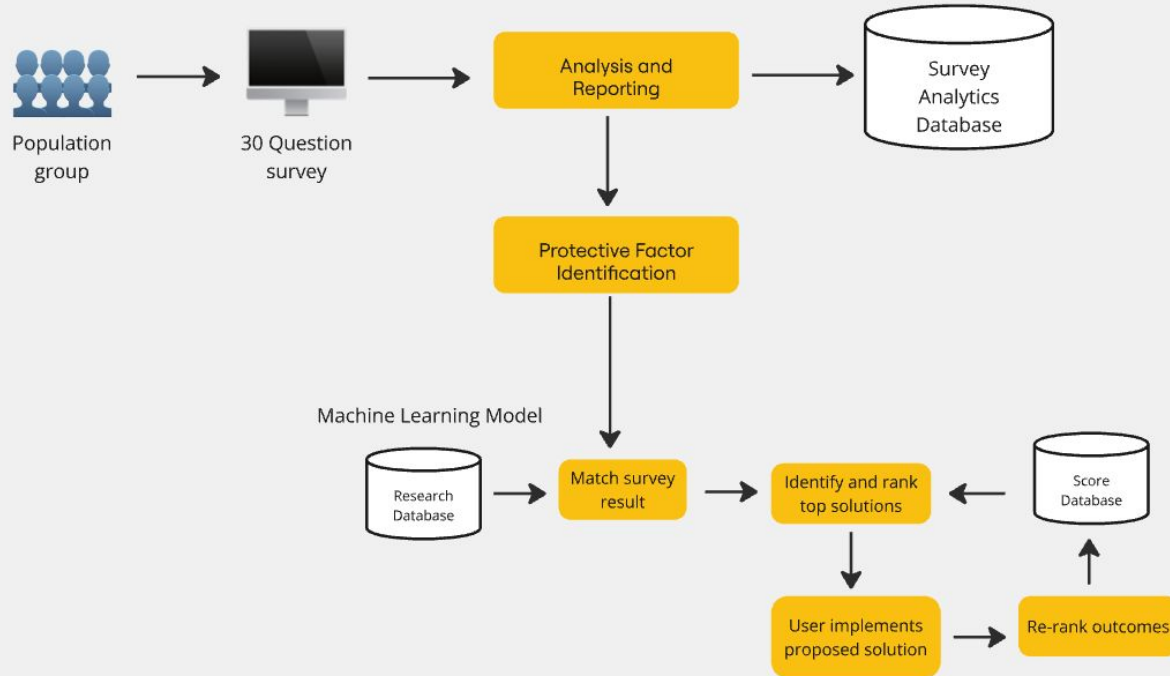
- MindArch Health was founded by Nadine Wilches, LCSW CIMHP back in 2019
- Nadine saw significant limitations on the conventional models in addressing mental health issues
- She wanted to revolutionize the approach to mental health and social impact
- Prevention and integration
- Nonprofit organizations, educational institutions, health agencies, technology sectors, and more



Defining the Problem

- Growing crisis after crisis causing community, family and individual emotional distress
- “Prevention is better than cure.”
- Strengthen protective factors known to reduce risk of mental and behavioral health disorders
- 30 questions survey ➡ ML and the 4 Ps
- Enhance strategic planning efforts

System Architecture



Collaboration & Research

- **Weekly Team Meetings**
 - Set agendas to align goals and tasks.
 - ClickUp
 - Discussed progress and challenges.
 - <https://www.sci-hub.ee/>
- **Pre- & Post- Meeting Follow Ups**
 - Reviewed individual preparation.
 - Discussed action items.
 - Structured emails.
- **Scholarly Research Approach**
 - Identified and evaluated relevant peer-reviewed articles.
 - (2019-2024), Process/Outcome.
- **Collaborative Documentation**
 - Consolidated and categorized research.

Mind Arch Health Automated Pathway (MAP) Test Plan

- Behavior consistency
- Mitigate bias
- Objective
 - Identify Key Factors to improve population-wide wellbeing
 - Provide predictive solutions
 - Policy, Practice, Program, Place
 - Post-intervention analysis
 - identified key factor increased, decreased, remained consistent

Test Plan Scope

- Code
 - Code component operation
 - Understand functionality
- Data
 - Testing, Training, Validation
 - Representation of world-wide population
- Model
 - Integration with databases
 - Functionality aligns with MindArch Health needs

OBJECTIVE:

To create a functional machine learning model which can (1) identify key factors to help improve population-wide wellbeing (2) provide predictive solutions

SCOPE:

This plan will consist of testing three main areas in the following order (1) code (2) data (3) model. Utilizing different forms of testing ie. unit testing: components of code will be tested to ensure functionality. Data will be cleaned and split into three categories of testing, training, and validation to ensure no data duplication and leakage errors. The model will be tested to check integration between the model and database containing survey information. The model's functionality will be tested post-training to check if its functionality aligns to the needs of MindArch Health. Testing regarding the post-intervention analysis portion of MindArch Health's goal will not be done as part of this test plan.

STRATEGY:

Step	Testing Methods	Testing Leader	
1.1	● Unit Testing		
1.2	● Data Validation		
1.3	● Integration Testing		
1.4	● Functional Testing		

THANKS!!