LLM Experimentation Report: Mental Health Risk Explanation

1. Survey Questions Used

The LLM was prompted using responses to the following questions:

- 1. Are you self-employed?
- 2. Do you have a family history of mental illness?
- 3. What is your age group?
- 4. How many mental health support benefits does your company provide?
- 5. If you have a mental health condition, how much does it interfere with work?
- 6. How many employees does your company have?
- 7. Do you work remotely at least 50% of the time?
- 8. Is your employer primarily a tech company?
- 9. Is your anonymity protected if you seek mental health treatment?
- 10. How easy is it for you to take medical leave for mental health?
- 11. Do you think discussing mental health at work has negative consequences?
- 12. Do you think discussing physical health at work has negative consequences?
- 13. Would you discuss mental health with coworkers?
- 14. Would you discuss mental health with your supervisor?
- 15. Would you bring up mental health in a job interview?
- 16. Would you bring up physical health in a job interview?
- 17. Does your employer take mental health as seriously as physical health?
- 18. Have you observed negative consequences for coworkers with mental health conditions?

2. Example 1 - "At Risk" Prediction

User Responses:

- Self-Employed? No
- Family History of Mental Illness? Yes
- Age Group? 26-40
- Company Mental Health Support? None
- Work Interference? Often
- Employees in Company? 100+

- Remote Work? No
- Tech Company? Yes
- Anonymity for Mental Health Treatment? No
- Ease of Taking Mental Health Leave? Difficult
- Negative Consequences for Discussing Mental Health? Yes
- Negative Consequences for Discussing Physical Health? No
- Discuss Mental Health with Coworkers? Rarely
- Discuss Mental Health with Supervisor? No
- Bring Up Mental Health in a Job Interview? No
- Bring Up Physical Health in a Job Interview? Maybe
- Employers Take Mental Health Seriously? No
- Observed Negative Consequences for Coworkers? Yes

Predicted Status: At Risk

LLM Output:

Your responses indicate a high mental health risk, mainly due to limited workplace support and the perception that discussing mental health could have negative consequences. Given your high work interference and stress levels, it is recommended that you explore external mental health support, such as professional counseling or peer support groups. Stress management techniques like mindfulness and regular physical activity may also help. Consider discussing your concerns with HR or trusted colleagues to explore available resources.

3. Example 2 – "Not at Risk" Prediction

User Responses:

- Self-Employed? No
- Family History of Mental Illness? No
- Age Group? 26-40
- Company Mental Health Support? 3
- Work Interference? Rarely
- Employees in Company? 100+
- Remote Work? Yes
- Tech Company? No
- Anonymity for Mental Health Treatment? Yes
- Ease of Taking Mental Health Leave? Easy
- Negative Consequences for Discussing Mental Health? No
- Negative Consequences for Discussing Physical Health? No
- Discuss Mental Health with Coworkers? Often

- Discuss Mental Health with Supervisor? Yes
- Bring Up Mental Health in Job Interview? Maybe
- Bring Up Physical Health in Job Interview? Maybe
- Employer Takes Mental Health Seriously? Yes
- Observed Negative Consequences for Coworkers? No

Predicted Status: Not at Risk

LLM Output:

Your responses indicate a low mental health risk. You have access to company mental health benefits, work in a supportive environment, and feel comfortable discussing mental health with colleagues and supervisors. Continue maintaining a healthy work-life balance and using available workplace resources to sustain your well-being. Practicing self-care and checking in with yourself regularly will help ensure continued mental health stability.

4. Conclusion

- The LLM provides personalized explanations for the predicted mental health risk.
- It offers useful coping strategies based on workplace conditions and personal history.
- The model effectively differentiates between "At Risk" and "Not at Risk" users.

Final Notes:

This method improves **interpretability** and **user engagement**, making mental health predictions more actionable.