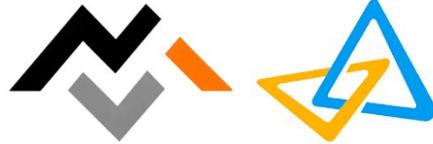




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## VVORTEX 2026

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### VVAIML\_03

#### AI-Powered Mental Well-Being Risk Indicator and Solve it (non-clinical)

#### PROBLEM STATEMENT

Early signs of mental well-being decline often appear as gradual changes in behavioural patterns over time, such as disrupted sleep routines, irregular activity levels, or shifts in digital usage habits. These signals are typically subtle, highly personalized, and non-clinical in nature, making early identification challenging without intrusive monitoring. A carefully designed system can help surface potential risk indicators while preserving user privacy and explicitly avoiding medical diagnosis.

#### CHALLENGE

Design a non-clinical system that analyses anonymized behavioural patterns to identify early mental well-being risk indicators, while providing transparent, uncertainty-aware insights and ensuring ethical data handling, privacy preservation, and user control.

## **MINIMUM REQUIREMENTS**

- Analyse anonymized behavioural patterns over time, focusing on trends, deviations from personal baselines, and irregular changes
  - Generate a non-clinical mental well-being risk indicator without using medical terminology or diagnoses
  - Provide interpretable explanations and uncertainty-aware outputs for identified risk indicators
  - Ensure privacy-preserving design using only aggregated or transformed behavioural data
  - Remain robust to missing, noisy data and to behavioural changes caused by external factors such as travel or schedule shifts
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“Wishing you all the very best for the hackathon. May your hard work, creativity, and teamwork lead you to great success.”