



IU International University of Applied Sciences (Berlin)

Master of Science (M. Sc.) – Computer Science

Automated Mental Health Monitoring and Support System

Using AI

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Introduction

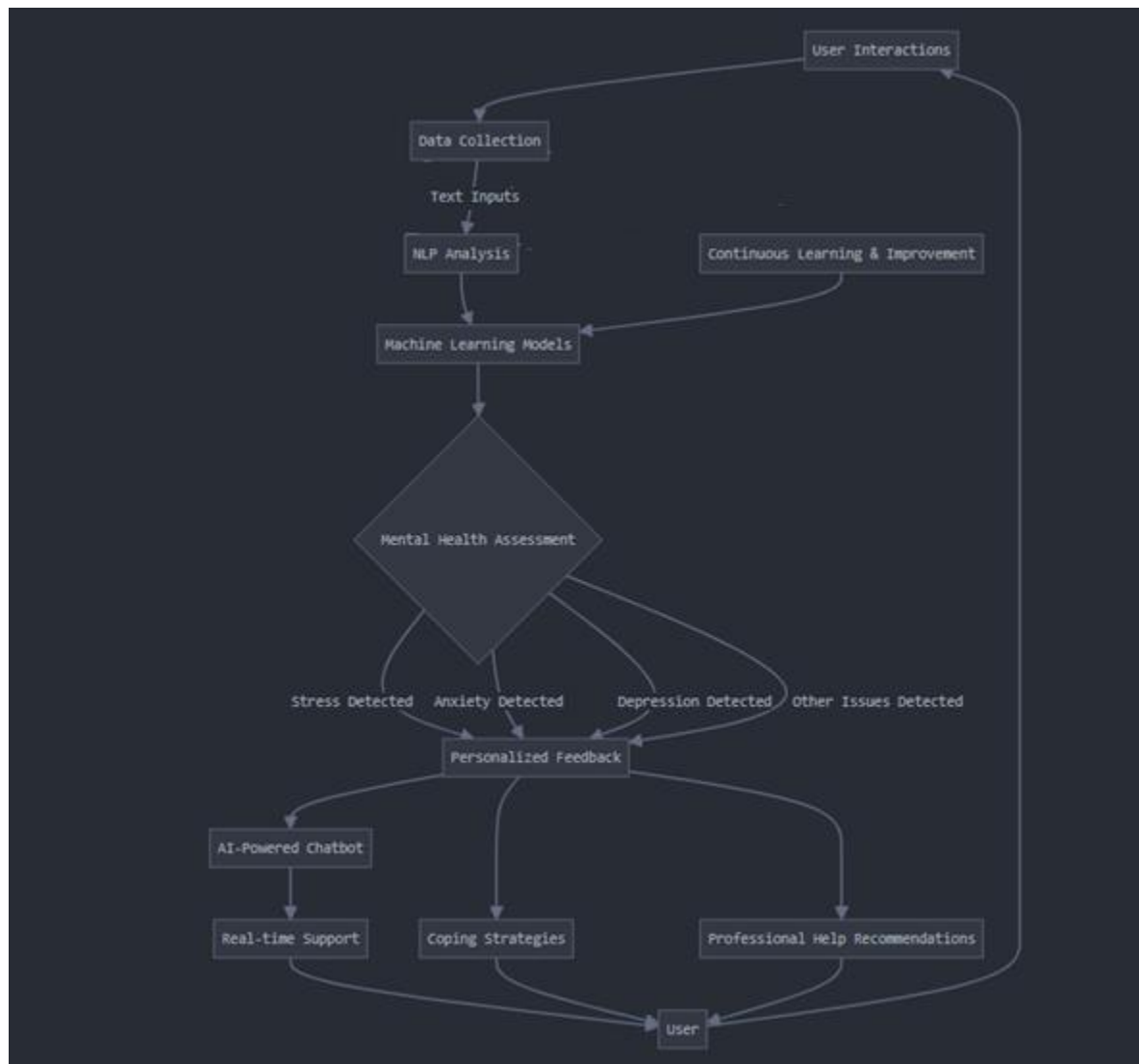
The increasing prevalence of mental health issues, coupled with barriers to timely, accessible, and personalized care, has motivated this project. The core idea is to leverage artificial intelligence (AI) for developing an automated mental health monitoring and support system that provides real-time analysis and interventions.

Aim of the Project

This project aims to create a solution that addresses the stigma around mental health, while offering proactive support. The initial motivation is to make mental health care more accessible, reducing reliance on traditional methods that may not be available to all.

Methodology

The system will use natural language processing (NLP) and machine learning (ML) to analyze users' digital interactions—such as text inputs and social media posts—to detect indicators of mental health conditions like stress, anxiety, and depression. By identifying patterns, the system will offer personalized feedback, coping strategies.



Several ideas were considered, with sustainability of the solution being tested through its capacity to scale, adapt to diverse user needs, and provide ongoing support. The chosen methodology—NLP and ML—was selected due to its ability to process large amounts of unstructured data and deliver personalized insights. The overall procedure includes data collection, algorithm training, real-time monitoring, and continuous feedback to users, ensuring a responsive and adaptive system that can improve mental health outcomes