World Academy of Science, Engineering and Technology
International Journal of Computer and Information Engineering
Vol:18, No:12, 2024

TimeTune: Personalized Study Plans Generation with Google Calendar Integration

Authors : Chevon Fernando, Banuka Athuraliya

Abstract : The purpose of this research is to provide a solution to the students' time management, which usually becomes an issue because students must study and manage their personal commitments. "TimeTune," an AI-based study planner that provides an opportunity to maneuver study timeframes by incorporating modern machine learning algorithms with calendar applications, is unveiled as the ideal solution. The research is focused on the development of LSTM models that connect to the Google Calendar API in the process of developing learning paths that would be fit for a unique student's daily life experience and study history. A key finding of this research is the success in building the LSTM model to predict optimal study times, which, integrating with the real-time data of Google Calendar, will generate the timetables automatically in a personalized and customized manner. The methodology encompasses Agile development practices and Object-Oriented Analysis and Design (OOAD) principles, focusing on user-centric design and iterative development. By adopting this method, students can significantly reduce the tension associated with poor study habits and time management. In conclusion, "TimeTune" displays an advanced step in personalized education technology. The fact that its application of ML algorithms and calendar integration is quite innovative is slowly and steadily revolutionizing the lives of students. The excellence of maintaining a balanced academic and personal life is stress reduction, which the applications promise to provide for students when it comes to managing their studies.

Keywords : personalized learning, study planner, time management, calendar integration
Conference Title : ICMLC 2024 : International Conference on Machine Learning and Cybernetics
Conference Location : Sydney, Australia
Conference Dates : December 02-03, 2024