**PROJECT PROPOSAL**

| **Date of proposal:** 03/10/2023 |
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| **Project Title:**  GameRS: Game Recommendation System |
| **Group ID (As Enrolled in Canvas Class Groups):**  15  **Group Members (Name, Student ID):**  Chen Haoquan A0286061E  Cui Mengchen A0285690R  Huang Yifei A0285719M  Liang Jinning A0285754N |
| **Sponsor/Client:** *(Company Name, Address and Contact Name, Email, if any)* |
| **Background/Aims/Objectives:**  The global video game market size was estimated at USD 217.06 billion in 2022 and is expected to grow at a compound annual growth rate (CAGR) of 13.4% from 2023 to 2030. The market's expansion is attributed to the ongoing trend of online gaming, the emergence of high bandwidth network connectivity, and the continuous demand for 3D games. In addition, an upsurge in the penetration of smartphones has made video games more accessible, portable, and social. This has further driven the industry growth with the emergence of technologically advanced and more powerful smartphones. The market players are also focusing on developing advanced gaming products and services to attract a larger customer base, which is positively influencing the overall industry.  In today's digital era, the gaming industry has witnessed exponential growth, offering a vast array of games across numerous categories. To cater to the diverse preferences and ever-evolving trends, it has become crucial to develop a robust and efficient game recommendation system. Such a system aims to enhance the user experience by suggesting relevant games tailored to individual preferences. Our project’s aim is serving users better and keeping up with the dynamic nature of the gaming industry with a multifunctional and convenient game recommendation system. |
| **Project Descriptions:**  We are developing a game recommendation system that aims to cater to the diverse preferences and interests of gamers within the gaming community. Our system is designed to provide personalized game recommendations based on individual tastes and playing habits, ensuring that each user receives suggestions that align with their unique preferences.  Our target users include casual gamers, hardcore gamers, genre-specific gamers, game-makers or trend-seekers, and gamers seeking variety. For casual gamers, we will suggest games that are easy to learn and offer quick bursts of fun. Hardcore gamers will receive recommendations for immersive multiplayer games, open-world adventures, strategic role-playing games, and more. Genre-specific gamers will be offered tailored suggestions within their preferred genre, such as action, adventure, puzzle, sports, strategy, or simulation. Game-makers or trend-seekers will stay updated with trending games, newly released titles, and emerging genres. Gamers seeking variety will receive a mix of recommendations from different genres.  Our recommendation system will continuously adapt and learn from user feedback to enhance user satisfaction. By considering the preferences, gaming habits, and trends of our target users, we aim to serve as a valuable tool in their gaming journey, introducing them to new games and helping them discover titles that align with their unique preferences.  In terms of market analysis, we have identified several challenges and opportunities. The market currently lacks a focus on personalized recommendations, relying more on game rankings. Existing filtering systems are often complex and make it challenging for users to find games according to their specific criteria. Additionally, there is a lack of integration between game recommendation platforms and game makers, limiting the exposure and reach of new game releases.  Our competitors primarily include game forums and platforms that provide spaces for gamers to discuss and discover new games. However, these platforms may not necessarily offer personalized recommendations based on individual preferences.  Emerging trends in the gaming industry include rapid growth in terms of both game releases and the number of players. This indicates a need for efficient and accurate game recommendations to help users navigate the vast selection available. The expansion of game categories has been relatively slow, presenting an opportunity for our recommendation system to help users explore diverse game genres and expand their gaming experiences.  The primary demand in the market is to quickly match players with games that align with their preferences. Additionally, there is a need for game makers to have their games effectively recommended to potential players, maximizing their visibility and reach.  To meet these demands, our system will focus on game matching, user profiling, chatbot interface, game introduction, and advanced recommendation algorithms. We will ensure quick and accurate game matching based on factors such as genre and gameplay style. Users will have personalized profiles where they can input their gaming preferences, playing habits, and favorite genres. Our chatbot interface will provide a convenient way for users to search, answer basic questions, and display relevant data. The system will also include an introduction page for each game to provide detailed information. Advanced recommendation algorithms will continuously learn and adapt based on user feedback, improving the accuracy and relevance of game suggestions.  In conclusion, our game recommendation system aims to address the existing problems in the gaming industry by providing personalized and efficient recommendations. By focusing on simplicity, integration with game makers, and continuous improvement through user feedback, we aim to position ourselves as a valuable tool in the gaming market.  This is our workflow design: |
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