NIGEETHA R

Final Project

Human Behavior Prediction in Social Networks using Graph Embedding and Deep Learning

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PROBLEM STATEMENT

Predicting human behavior in social networks poses challenges due to the intricate and evolving nature of interactions. Traditional methods often fall short in capturing these complexities, hindering

applications like personalized recommendations
Utilize graph embedding to represent social networks in low-dimensional spaces,preserving structural and semantic information

PROJECT   OVERVIEW

We propose an innovative method for predicting human behavior within social networks, combining graph embedding and deep learning. Firstly, we represent the social network as a graph and employ graph embedding to capture structural and semantic information.

Then, utilizing deep learning, we design a model that leverages recurrent or convolutional neural networks to learn temporal and spatial patterns.

Our approach is evaluated on real-world datasets, demonstrating superior performance in predicting various behaviors like information diffusion and sentiment propagation
.

This fusion of techniques offers promising insights into social interactions with implications for fields like social science and marketing.

WHO ARE THE END USERS?

End users of Human Behavior Prediction in Social Networks using Graph Embedding and Deep Learning include social media platforms, marketing agencies, e-commerce sites, healthcare providers, financial institutions, government agencies, law enforcement, and academic researchers. These models serve to enhance user experiences, optimize marketing strategies, improve healthcare interventions, detect fraud, ensure public safety, and advance social science research.

YOUR SOLUTION AND ITS VALUE PROPOSITION

- Our solution for Human Behavior Prediction in Social Networks using Graph Embedding and Deep Learning offers accurate predictions by integrating complex social dynamics. It provides personalized insights across various domains, adapts in real-time, and upholds ethical standards. This versatile solution empowers users to optimize strategies and enhance decision-making in diverse industries.

THE WOW IN YOUR SOLUTION

It lies in its ability to unravel the intricate patterns of human interaction within social networks with unprecedented accuracy and depth.

- By harnessing the power of graph embedding and deep learning teour solution transcends traditional limitations, offering personalized insights and predictions capabilities across diverse domains.
- It seamlessly integrates structure and semantic information from social networks,enabling real-time adaptability and upholding ethical standards.
- This innovative approach revolutionizes decision-making processes, empowering users to optimize strategies, enhance user experiences, and navigate complex social landscapes with confidence and precision.

MODELLING
   Teams cam add wireframe

➤ Dashboard Overview: Central hub for predictive insights.

➤ Graph Visualization: Visual representation of social network dynamics.

➤ Behavior Predictions: Charts/graphs displaying predicted behaviors.

➤ User Interaction: Interactive elements for user engagement.

➤ Data Filters: Options for data subset selection.

➤ Recommendations: Personalized insights based on predictions.

➤ Performance Metrics: Assessment of model accuracy and performance.

RESULT

It encompass prediction accuracy metrics, insights on predicted behaviors, and their impact. This includes the model's precision, recall, and F1-score, along with analysis of temporal and spatial patterns in predictions.
 Impact assessment involves evaluating personalized recommendations, campaign effectiveness, anomaly detection, community dynamics, and user engagement. Qualitative feedback, case studies, and comparative analyses are essential, alongside considerations for privacy, fairness, and transparency.