Adaptive Recommender System using Hybrid Embeddings and Real-Time Feedback

Built a personalized course recommender using BoW, BERT, and ANN; deployed with live feedback loop and advanced embedding diagnostics.

1-Page Resume Bullets (24 words each)

- Designed hybrid BoW+BERT embeddings to represent user interests and course content, improving relevance and personalization over popularity-based recommendations.

- Trained and evaluated ANN, KNN, and NMF models; implemented top-N retrieval with feedback-aware reranking for cold-start and unseen users.

- Deployed the recommender via Streamlit; added user feedback loop and t-SNE/UMAP visualizations for interpretability and live model diagnostics.

2-Page Resume Bullets (18 words each)

- Engineered a hybrid recommender using BoW and BERT embeddings for capturing personalized content and user-course relationships.

- Trained ANN, KNN, and NMF models on implicit ratings to generate personalized, cold-start tolerant top-N recommendations.

- Deployed system via Streamlit with real-time feedback logging for adaptive model updates and user-aligned reranking.

- Visualized latent spaces using t-SNE and UMAP to debug embedding drift and improve diversity and novelty.