JINGBO FAN

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EDUCATION

Bachelor of Internet of Things (88.3/100), Beijing University of Posts and Telecommunications 2021 - 2025 Relevant Coursework: Introduction to Computing and Foundation of Programming (96), Discrete Mathematics (92), Data Structures (91), and Probability Theory and Stochastic Processes (92).

AWARD

The First Prize Scholarship(twice)	2021 - 2023
Excellent Student Cadre at the School Level	2021 - 2022
Merit Student at the School Level	2022 - 2023

SKILLS

Code Language Python(Numpy, Pandas, Matplotlib, Scikit-learn, Pytorch), C, Java

Development Git&Github, Linux shell, Vim, Docker, Mysql

English Skills IELTS

EXPERIENCE

Research Intern Apr 2022 - Oct 2023

State Key Laboratory Of Networking And Switching Technology

BUPT, Beijing

- Constructed an online recommendation system service by employing a Bayesian collaborative filtering model, successfully deploying it into production to serve users.
- Investigated the utilization of attention mechanisms and diffusion models to capture multi-interests and interest evolution in user behavior.
- Applied label fusion techniques to enhance the model's classification accuracy for corresponding modalities in multi-modal information alignment, resulting in an improved classification accuracy.

PROJECTS

Bayesian CF Online Recommender

Nov 2022 - Mar 2023

• Employed a Bayesian collaborative filtering model as the core recommendation model in the entire system. It selected the Top-k items based on user behavior as the recommended results. To address the cold start issue for new users, we calculated the then-most popular Hot-N items as recommended results for display. We employed the method of maintaining a user-item matrix in memory for parameter updates.

User Multi-Interest Drift

May 2023 - Oct 2023

• Had two main components: modeling users' multiple interests using a GRU model and capturing interest evolution over time. In the first part, a global interest matrix was maintained alongside GRU-derived user representations. An autoencoding method optimized this representation. The second part focused on learning interest shifts within a latent space. User sequences were split into segments, and the Hausdorff-inspired loss function measured the distance between interest vectors, guiding model optimization.

Multi-Modal Information Alignment Technology

Jun 2023 - Oct 2023

• Addressed the challenge of aligning multi-modal information in the event classification process. After thorough research, we employed a ResNet-152 model for handling image data and a pre-trained BERT model for processing text information in event data. Additionally, we utilized word vectors from image labels to calculate attention with the ResNet model's output, obtaining a new image representation vector. This vector, concatenated with the event text information vector, underwent classification through an MLP, with BCEWithLogitsLoss serving as the optimization loss function.